# Ranger Rick's nature magazine

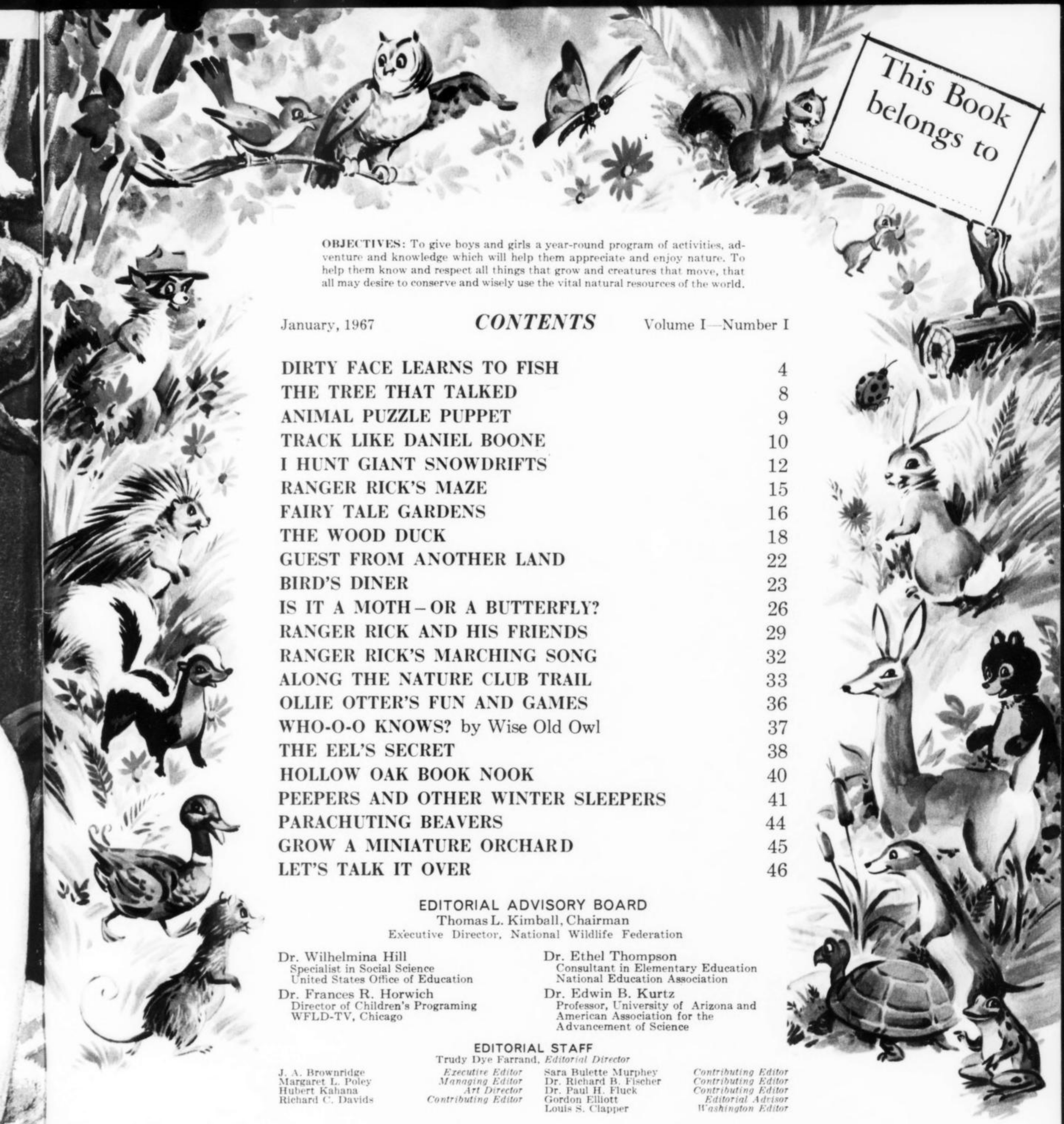
January, 1967

**Hi, Rangers!**

You now hold in your hands the very first issue of RANGER RICK'S NATURE MAGAZINE. It's winter. Winter is exciting whether you live in the North or the South. In the warm southland you have most wildlife with you all year long to watch and enjoy. But even in the cold northcountry, there are many things to see and do. You might attract winter birds to your yard with feeders as shown on the front cover. You won't ever find all the birds and animals gathered together at the same time as shown but they can be seen at different times in almost all areas. On the cover you see the Black-capped Chickadee, Evening Grosbeak, Slate-colored Junco, Cardinal, Red-breasted Nuthatch, Chipmunk, Red Squirrel and Cottontail Rabbit.

You can build nesting boxes for early spring birds, take winter nature walks and study wildlife tracks in the snow. You might see a nosey weasel like the one shown on this page. In his white winter coat he is hard to see. In summer his fur is brown; where there is no snow it stays brown all year 'round. This is some of what your first issue is about. Now jump into the first page and have fun.

RANGER RICK

Painted for the National Wildlife Federation by Carl Burger

**OBJECTIVES:** To give boys and girls a year-round program of activities, adventure and knowledge which will help them appreciate and enjoy nature. To help them know and respect all things that grow and creatures that move, that all may desire to conserve and wisely use the vital natural resources of the world.

January, 1967

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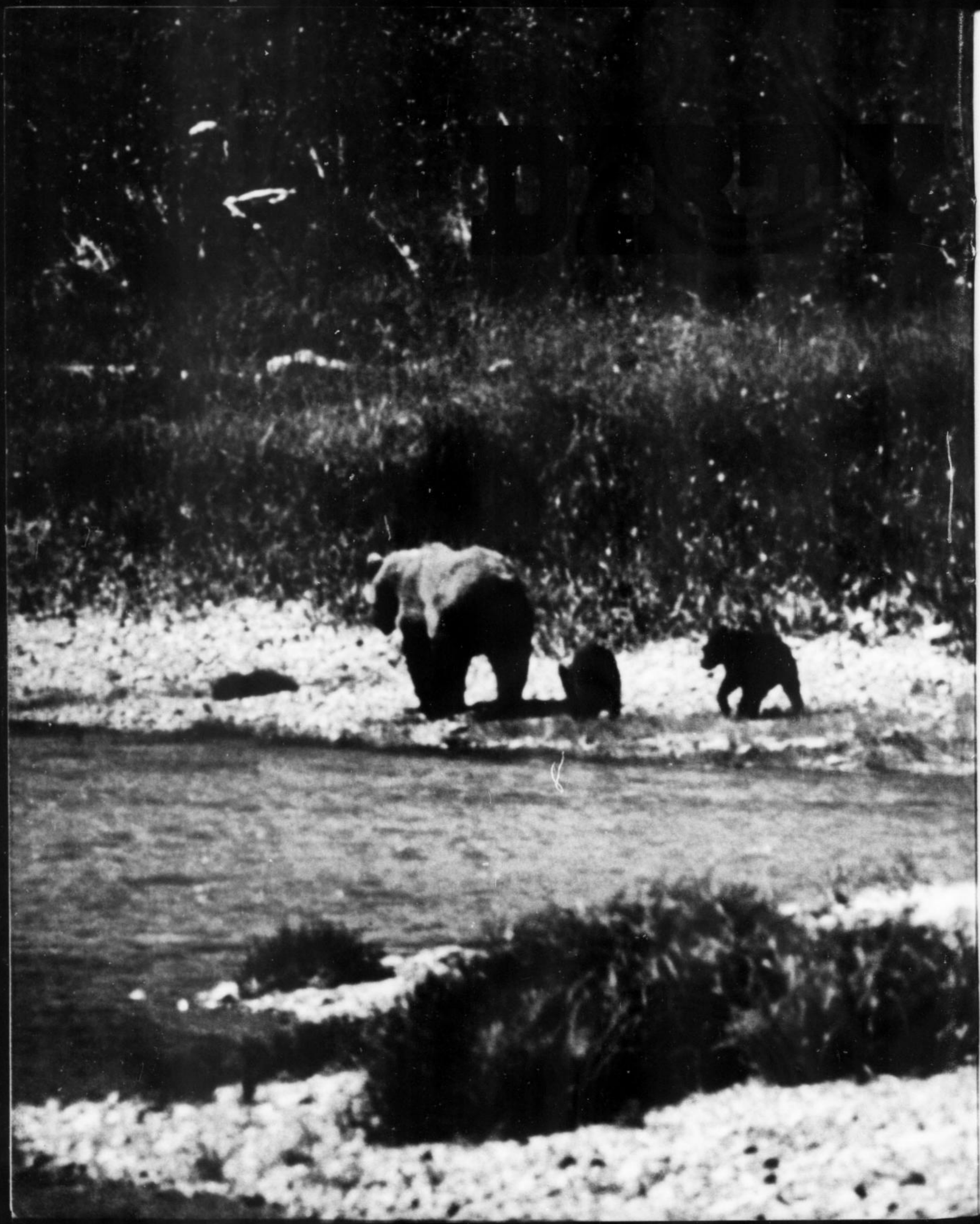

# FACE LEARNS TO FISH

by RICHARD C. DAVIDS

The world seemed wonderful to Dirty Face, a little brown bear, who lived with her big, furry mother beside the McNeil River in Alaska. She got her name from her muzzle, which was always black, no matter how carefully and how often her mother licked it.

Dirty Face didn't care. She was happy. There were plenty of roots and berries and mice to eat. The river was clear and full of salmon, and Mother Bear was a fine fisherman. She could grab a fish in her big mouth and dig up ground squirrels with her curved claws, which were half as long as a pencil. All Dirty Face had to do was watch and feast.

When Dirty Face was three years old, Mother Bear had twin male cubs. After that, life was never the same for Dirty Face. Every time she came near her little brothers—who looked like roly poly Teddy bears—Mother Bear snarled and growled. And one day Mother Bear and her twin babies walked away, leaving Dirty Face all alone.

Dirty Face was very sad. Before long she grew very hungry. She dug for roots in the sand bars but couldn't find any. She climbed the riverbank and sniffed for ground squirrels. But her mother had already found them.

Sadly, Dirty Face returned to the river and gazed out over the cold, cascading water. If you were a little bear, how would you catch fish with only your mouth and two bare paws? Dirty Face inched her way out on a shallow reef.

One day Mother Bear walked away leaving Dirty Face all alone.
<

Picture by Steve McCutcheon

Hunger made her try to learn to fish for salmon.
>

The true story of a real, live bear with a black muzzle.

In all the world there was no sadder, colder bear.

She saw the salmon darting past on their way upstream to lay their eggs. Dirty Face should have watched more closely when her mother had fished!

A salmon paused. Dirty Face batted at it with her left paw so hard she slipped and fell into the swirling water. She crawled out and shook herself, and went back to the riverbank, shivering and whimpering.

In all the world there was no colder, sadder bear than Dirty Face.

But hunger made her try again. Though she was still a cub, she weighed 300 pounds. By the time she would be eight and a grownup, she would be three times that big. The Alaska brown bear is the biggest meat-eating land animal on earth. So you see why Dirty Face had to eat. Besides, she could eat only in summer, because all winter she would doze in a den hidden beneath the deep snow.

She waded out in the water and stood on her hind legs. She could see the fish better that way. A herring gull came to watch. Dirty Face stood and waited until the cold water made her feet ache. Once again she went to shore and shivered.

She bellered for her mother but there was no answer. All day she had been without food. Once when she wasn't looking, a salmon leaped out of the water beside her. The smell of fish made her even more hungry. She jumped into the river, lost her footing on the rocks and was covered with white spray.

Struggling to find her footing, she felt a stick. But it wasn't a stick. It moved. Her claws sank deep and held it—a fat, wriggling salmon!

She grabbed it in her mouth and splashed her way to shore, paused and shook herself so hard the droplets made a shiny mist around her. The gull screamed above her. This was fun! Getting your own fish was even better than having your mother catch fish for you. Being a grownup was going to be exciting.

Dirty Face learned that salmon sometimes rest before leaping upstream over the rocks, and in the foaming water they couldn't see her. She learned to feel for them and when to pounce. Sometimes with one fish already in her mouth, she would try to catch another. Often she would disappear completely under water. Now and then she would dive and go head over heels. She was in the water a third of the day. The exercise kept her warm.

The photographer who took these pictures of her said that by August, Dirty Face was the best fisherman on the whole river!

Right now as you are reading this, Dirty Face is asleep in her own snug cave beneath a rock ledge, the first time she has had a home of her own. Perhaps she dreams of May when flowers will burst again from their winter buds and fish will return to the swift pure waters of the McNeil. Perhaps her nose is twitching now at the untold pleasures that await the call of spring.

THE END

Pictures of Dirty Face by Leonard Lee Rue, III

Dirty Face became the best fisherman on the whole river!

## THE ALASKA BROWN BEAR

Dirty Face is a close relative of the grizzly bear. There are a few scattered survivors left. White men trapped and killed so many of them to sell their meat and fur in the market. Also, our grandfathers and great-grandfathers turned the land where the bears made their homes, into farms, towns, roads and cities. Then the bears had no place to live. However, you can still see them in certain parks, especially Yellowstone National Park.

In Alaska they grow to an enormous size. The males are the biggest, and sometimes weigh as much as 1200 pounds—almost as much as a piano. When they stand on their hind legs, some are nine feet tall—about as high as the ceiling in your bedroom!

Of all the meat-eating or "carnivorous" animals that live on land, the Alaska brown bear is the biggest. The polar bear sometimes grows even bigger, but it lives mostly at sea.

Most of the time the Alaska brown bear is gentle and minds its own business. But if teased, or wounded, or defending its young, it can be very dangerous. This is why you wouldn't like to have one living near you, and also why our forefathers killed them.

But Dirty Face and her relatives deserve a home as much as you do. The home she likes is far from you, in the wilderness of rushing streams and salmon and blueberries.

Picture by Gene Ahrens

# THE TREE THAT TALKED (An Indian Legend)*

An Indian brave, walking through the forest, stumbled and fell. As he was getting to his feet, he heard a quiet voice behind him. "Human", the voice said, "when you fall you rise to your feet and stand. When we of the forest fall, we never rise again." The hunter turned his head. All he could see was a large tree towering above the other trees of the forest. He knew that a tree had spoken.

With this legend Indians taught their children to respect every tree in the forest. Not one was to be used without good purpose. Trees were friends that gave them wood for fires to roast their meat and keep their tepees warm. Other trees provided bark for their canoes, medicine for their illnesses and shelter for the tribe. The animals that gave them food and skins also depended on trees for shelter.

*From "This Is Our Land," by permission, Webb Publishing Co., St. Paul.

**YOU CAN SHARE THE FUN & EXCITEMENT OF RANGER RICK'S NATURE CLUB WITH YOUR FRIENDS & FORM A NEIGHBORHOOD OR CLASS CLUB TOO!**

## HERE'S HOW . . .

**FIRST,** show your Ranger Rick's Nature Magazine to your friends or classmates and tell them that they can get their own copies and enjoy all the benefits of membership by joining the club too.

**SECOND,** show your magazine to your friends' parents and have your friends ask their parents for permission to join Ranger Rick's Nature Club. Or, show the magazine and this form to your teacher and ask to have a class club.

**FINALLY,** have your friends or their parents complete the applications for membership provided on the other side of this page (list additional names and addresses on a separate sheet) and mail them to us with a payment of $6.00 for each membership requested.

**THEN,** when there are five members of the club (including yourself) in your neighborhood, you will be eligible to receive an official neighborhood club certificate by sending us your names and membership numbers. Your club will then be eligible to compete for the special club prizes listed on this form. There are also special certificates and special prizes for school class clubs.

## SPECIAL MONTHLY AWARDS FOR CLUBS

**NEIGHBORHOOD CLUB AWARDS**

1 GOLD STAR PENNANT—Awarded to the club with the most members. (This award may only be won by a club once a year.)

2 GOLD BANNER PENNANT—Awarded for the best club project of the month.

**SCHOOL CLASS CLUB AWARDS**

1 MOST MEMBERS CERTIFICATE—Awarded to the class club with the most individual members in RANGER RICK'S NATURE CLUB. (This award may only be won by a class once a year.)

2 CONSERVATION E PENNANT—Awarded for Excellence in having the best class project of the month.

**PRIZES AND AWARDS FOR INDIVIDUALS**

All Rangers are eligible to compete for the following prizes and awards on an individual basis:

1 FREE ALL EXPENSE PAID TRIP to SAN FRANCISCO or WASHINGTON, D.C. for a Ranger and his or her parents will be won by a Ranger with an outstanding record of nature and wildlife activity.

2 $1,000 COLLEGE SCHOLARSHIP TRUST FUND payable upon graduation from high school will be awarded in recognition of an outstanding achievement record in nature and wildlife activity.

3 ASSORTED PRIZES including ten sets of childrens' bird and animal books and 100 sets of wildlife trading cards and albums.

**IMPORTANT NOTICE:** 1967 competition for the individual prizes above closes February 1, 1967! SEND YOUR APPLICATION FOR MEMBERSHIP TODAY—DON'T DELAY.

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Please have your friends clip and use these convenient order forms. For additional orders simply furnish name and address on a separate sheet of paper and enclose $6.00 payment for each membership ordered.

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1. 10 issues of Ranger Rick's Nature Magazine
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3. A personalized membership card
4. A membership badge
5. A membership decal for bike or wagon
6. A discount on special Children's Books
7. A discount on special Ranger Rick items
8. A chance to earn free trips, scholarships, books, trading cards and albums (Join now to be eligible for the first Annual Contest which closes February 1, 1967.

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**A FULL YEAR OF FUN & EXCITEMENT FOR ONLY $6.00!**

# ANIMAL PUZZLE PUPPET

Find out what is hidden here. Start at number 1 and draw a line to 2, then 3 and so on until you reach 66. When you get to the last number, you can color the picture. Then cut it out and paste it onto heavier paper or a piece of cardboard. Cut out the two holes for your fingers. Now you have a puppet that can walk or run or climb trees.

# You can track like

Art by John Quinn

You can learn to track the way the pioneers did. All it takes is practice.

Make your own tracks in snow or on a wet sidewalk. You can make tracks also when you get out of the bathtub or swimming pool. Look at them so you'll recognize them. Look at the shape and length of your footprint.

Animals and birds make tracks too. And if you follow their tracks long enough, you'll find them at the end of the trail.

Start in your own yard or in a vacant lot. Woods or fields or along streams are good places to find animal tracks in the mud or deep sand.

First try to follow a cat's track, and a dog's. Do they go in a straight line or zigzag? See how they look in deep sand or snow or on a wet sidewalk. Look for running and jumping tracks.

Most animals don't travel during a snowstorm. So don't expect many tracks on the first morning after a snowfall. After two or three days you could take a look out in the yard or a field and see what tracks there are. You can tell a track is old when the sun has melted the edges smooth.

Sharp eyes can tell which track is cat or dog and which is fox, which is squirrel and which weasel.

# Daniel Boone

by Dick Carlyle

But you need more than sharp eyes. You need to think. Cat and dog tracks lead to houses. Fox tracks don't. Squirrels run from tree to tree. Weasels run from log to stump. This is the fun of reading pawprints. You must track with your brain as well as your eyes!

Don't track the wrong direction. Look at the tracks at the top of this page. Which way were the rabbit and the junco running? If you said toward the top of the page, you were right. When a rabbit hops, his small front feet land first. Then his big hind feet are brought up ahead of his front feet so that he can make another long hop.

If you keep looking carefully you will see the beautiful trails of birds and mice and shrews, like strings of beads, or like stitching. Muskrats, turtles and some mice drag their tails, leaving a line between their footprints. Even ants make tracks. If you live on the edge of town, you may be surprised some mornings to find tracks of pheasants, crows, even deer, raccoons and skunks near your house.

See if you can figure what they were doing—walking, running, jumping, burrowing or looking for food. Were they fighting, escaping or, like you sometimes, just out for a walk because they love the outdoors?

You can learn much more about tracks from a book in your library called "Animal Tracks and Hunter Signs" by Ernest Thompson Seton.

The only reason you may not become as great a tracker as Daniel Boone or the Indians is that your life does not depend on it. But I am sure you will have fun. Who knows? Before long you can show your friends a thing or two about tracking.

# I hunt giant snowdrifts

**This is a story by one of America's brave men—a Snow Ranger, who helps keep our mountain roads and ski slopes safe. He tells what it's like to be caught in an avalanche at 150 miles an hour.**

I love a snowstorm. When the wind howls like a lonely wolf outside my house and the snow piles deep beside my doorway, I get excited because as a Snow Ranger with the Forest Service, I know that in the morning I will need to go shooting down avalanches, and maybe save people's lives. An avalanche, you know, is a large mass of snow and ice sliding or falling down a mountain side. In the summer, I work as a Forest Ranger, building trails, replanting tree seedlings and checking fire hazards. For the other half of the year I go hunting giant snowdrifts.

Snow (Nature's long-term water storage) is a great friend of man, but is sometimes dangerous. When it piles up on mountain sides without trees or rocks to hold it, it sometimes lets loose all

Pictures courtesy U.S. Forest Service

and start the drifts downhill before they grew any deeper. Then we'd race to safety in the rocks or trees on the edges.

But often the snow started to slide before I reached safety. I'd get caught like a fly in a sink or a cork in a whirlpool, and tumbled over and over, sometimes out and sometimes under. Snow in an avalanche moves like the waves of the ocean. I would be thrown out of a wave, then covered as the next wave broke over me. Sometimes I could chuck my skis, mostly I couldn't. I'd fight like a demon to swim upstream, because that helped me ride higher in the flow. I dog-paddled, kicked and fought for all I was worth.

A blizzard of snow surrounds an avalanche, so thick it's almost solid. You can't see. Most of the time you can't tell which way is up and which way is down. That blizzard of flying snow shoves a block of air in front of it pushing over trees and houses far ahead.

In Canada a couple of years ago the air blast ahead of an avalanche knocked over nine cars of a railroad train. The snow didn't touch them!

Behind the avalanche comes a vacuum that sucks in anything it can find. There's danger ahead of, behind and in an avalanche.

There's almost no sound to an avalanche. I wish there were! Then we might have some warning. Except when it picks up rocks or chunks of ice, an avalanche moves like a cat, hissing and gliding.

A ride in an avalanche can't take long. It moves too fast. One in Switzerland went 200 miles an hour. I clocked one myself at 150 miles an hour. That's five times faster than the best

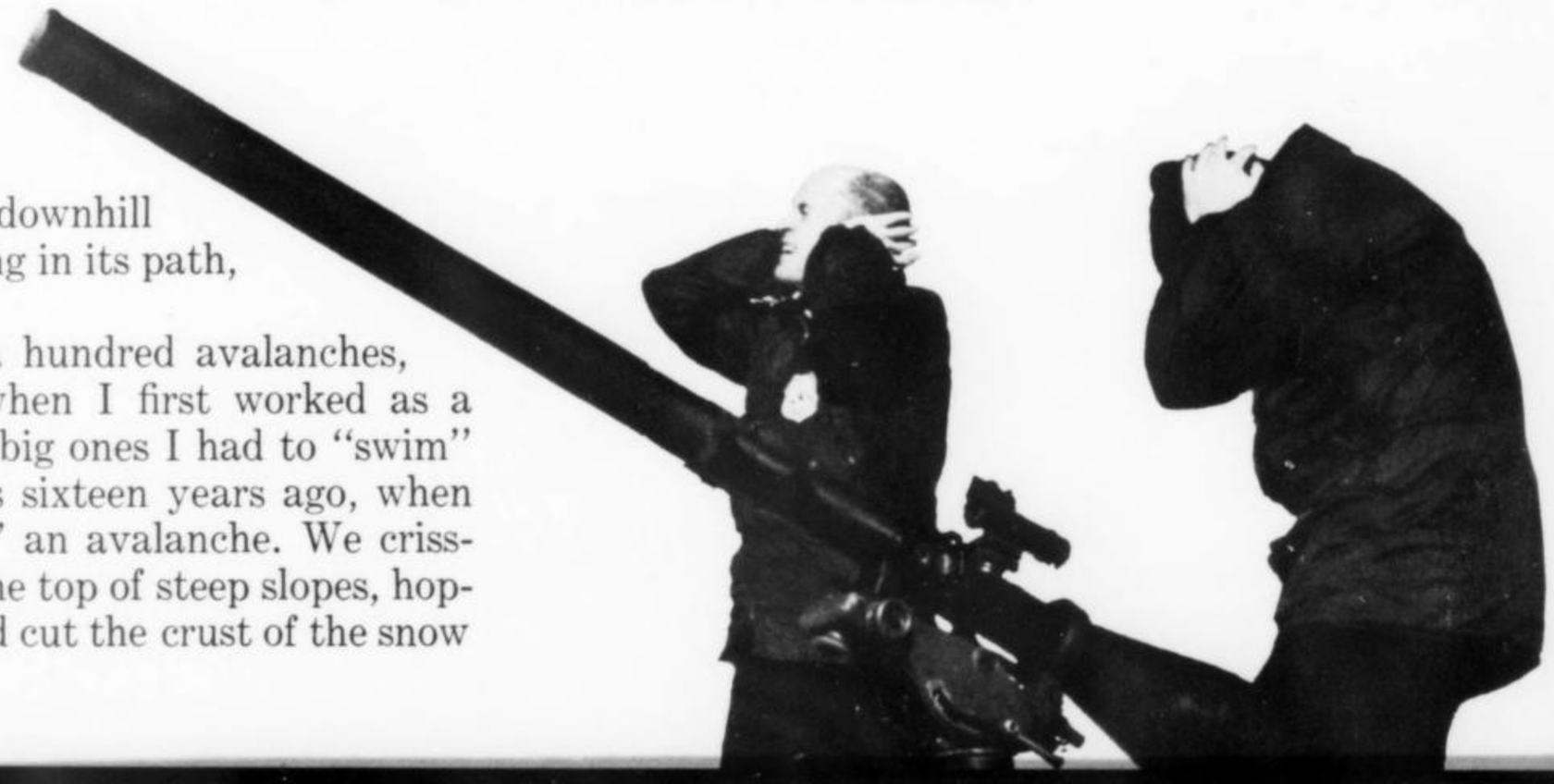
*please turn the page*

# s with a rocket gun

By RICHARD M. STILLMAN, Snow Ranger

at once, whooshing downhill
and burying everything in its path,
even whole towns.

I was trapped in a hundred avalanches, mostly small ones, when I first worked as a Snow Ranger. In the big ones I had to "swim" for my life. That was sixteen years ago, when we would "ski down" an avalanche. We criss-crossed the drifts at the top of steep slopes, hoping that our skis would cut the crust of the snow



Rangers ski across drifts and start them downhill before the snow gets too deep and dangerous.

Pictures by Gary Tolman

race horse, and about two and a half times faster than the speed limit on superhighways. You see why I get caught so many times, and why I can't tell you very much about what it's like to ride an avalanche?

I can tell you, though, exactly what it's like at the bottom of the valley, buried under snow and ice. You don't know how deep you are. You wonder if your buddy (we always work in teams of at least two) will be able to see part of your ski or your feet, or the long red cord that we always trail behind us whenever we are working along a slide path.

Even if you're buried under only a foot of snow, you can hardly move a muscle. The snow is so heavy and hard. Your breath makes an icy mask that will soon shut off the oxygen. You hope you will be found quickly. You pray.

Soon you hear footsteps and a very welcome voice telling you that all is well. Before long you're back in a cabin warming before a fire, drinking hot soup, eating crackers and laughing. In all the times I've been buried, I have never had to wait more than a few minutes to be rescued. Fortunately, it has been the same with all my friends who are Snow Rangers, although I must say that nearly all of us have gray hair.

We still "ski down" the drifts at the head of small valleys. It's quick. But today we have much better ways to fight big avalanches. We put sticks of dynamite in the snow along the ridges, and set them off with something called primacord; we light huge firecrackers and toss them at the drifts; we shoot at them with guns that look like big black pipes; we use the "avalauncher" (see picture). "Launch" means to start something going, so an avalauncher is a device to start avalanches going.

By keeping big drifts from forming, we can protect the skiers who come to enjoy the mountains. We can keep mountain highways safe also. We mark off unsafe trails. There are usually about ten Snow Rangers in the Forest Service, and none of us do foolish things to show off our bravery.

We are all trying to find out more about snow and what makes it dangerous. We'd like to make avalanche control a science someday, and not the art that it now is. For years I was out on my skis 180 days each winter—that's half of every year! I learned the feel of each kind of snow under my skis. I learned from my feet which snow would slide and which was safe. I am trying to teach others what I have learned, but it isn't easy to do.

Avalanches still fool us. One may race down a slope a mile long and go up the other side for half a mile before it stops. Another may reach the valley floor, then turn around and go back up the hill from which it came. The snow is like water sloshing in a bathtub. Another avalanche may flow right through a house breaking out windows, but do no other damage. If you can watch an avalanche from a safe distance you will see it move like a river in its bed, with eddies and whirlpools.

My two children and I like to ski together, but they don't go with me when I work. My daughter Joann is eleven and wants to be a nurse. My son Ricky, ten, wants to be a jet pilot or an oceanographer—anything but work on the ground, he says.

But I'll take the snow. No matter how much man dirties water, it falls again as snow, pure and sparkling, to melt in spring as gushing, life-giving clear water. And just as a storm at sea excites a seafaring captain, so the wail of a blizzard sets my heart to pounding. Will I be smart enough to shoot down the big drifts before someone gets hurt? I've been bruised and battered in the course of my duties, but I still love the life of a Snow Ranger.

THE END

# Ranger Rick's maze

Ranger Rick's friends are lost in the forest.
See if you can help him find each one so
they can all go home together.

# FAIRY TALE GARDENS

by SARA MURPHEY

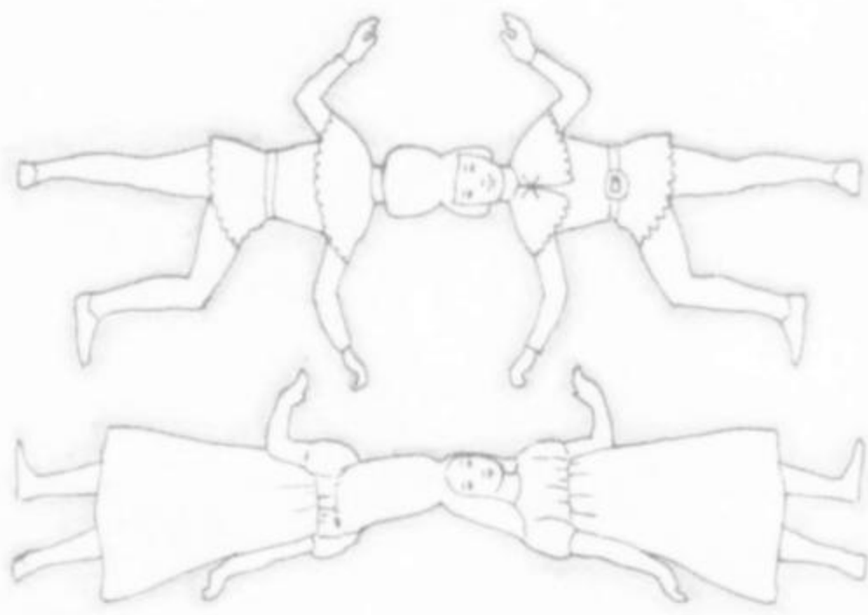
FAIRY TALES are really nature stories with an extra touch of magic. Plants and animals play a big part in them.

Jack would never have had his adventure with a giant and a goose that laid golden eggs if it had not been for the beanstalk that grew as high as the clouds. Before Thumbelina got to be Queen of the Flowers, she was carried off by a toad and helped by fishes, a butterfly, a mole and a swallow.

These two fairy tales lend their magic to indoor gardens which you can put together very quickly. You can use Philodendron, a plant with a long name that is really easy to say *fill-o-den-dron*. Potted Philodendron plants can be bought at supermarkets or flowershops. Or you can grow a real beanstalk from pole bean seeds. Prepare the soil for planting them as described on Page 45.

FOR JACK'S BEANSTALK you need a 6-inch flowerpot and a dead branch about 30 inches long. Half fill the large pot with small pebbles. These can be bought in pet depart-

Pictures by TINA and MANNING LEE



# RANGER RICK'S PLEDGE

I give my pledge as a member of
RANGER RICK'S NATURE CLUB
To use my eyes to see the beauty
of all outdoors.
To train my mind to learn the
importance of nature.
To use my hands to help protect
our soil, water, woods and wildlife.
And, by my good example, to
show others how to respect,
properly use and enjoy our
natural resources.

ments of variety stores. Push the dead branch into the pebbles as far as it will go. Put a small pot of Philodendron on top of the pebbles beside the branch. Spoon more pebbles into the large pot almost to its top, but do not cover the soil in the small pot. Carefully wind the Philodendron around the branch. If you water it regularly, it soon will reach the top.

Now you are ready to color, cut out, fold and paste the figure of Jack. When you put him in place, he is so tiny he will make the beanstalk look eNORmous, just as in the fairy tale. What's more, it will seem to be standing up all by itself because the branch looks like the main stalk of the vine.

FOR THE THUMBELINA GARDEN you can use an aluminum tray or cooky pan about 10 by 16 inches and at least 1 inch deep. You'll also need a small pot of Philodendron, pebbles, a few rocks, and a mirror somewhat smaller than the tray. If you do not have a mirror that is large enough, use aluminum foil for the "water." The picture shows one way you can arrange these.

If you spoon a little soil over the pebbles and add enough water to keep the soil damp, you can sink 1-inch slices from the leaf-ends of carrots into the pebbles and grow feathery plants. You may want to add a grapefruit "tree" (see Page 45) with its small pot hidden by rocks. Outdoors you will find golden dried grasses and silvery seed pods for your garden. Look for some brown, curled-up flower heads of Queen Anne's lace which look like tiny birds' nests.

A mirror garden is a wonderful place to show off things from a hobby collection such as animal figurines, unusual rocks or sparkling minerals. If you collect butterflies you could use one of your best specimens or draw and color your own.

You can make up other gardens that tell stories from your own favorite fairy tales. Think how pretty they would look on the window sill of your school library or classroom with the book each story comes from displayed right beside it!

Artificial flowers can add color to the carrot green now. In spring, look for tiny plants such as violets or lady-slippers to replace them.

# The Wood Duck

by Dr. PAUL H. FLUCK

## The bird that taught the Indians how to paint their faces

ONE DAY long ago an Indian boy, drinking from a brook, saw his face reflected in the water. He was sad at what he saw. "No wonder they call me 'Mouse Face'," he said.

Just then, across the brook, a pair of ducks poked their heads out of the cattails and swam by. Mouse Face could see that one of them had a magnificent crested head. The bill was colored pink and white and yellow. The cheeks were striped with purple, green, black and white, and he had orange-red eyes. It was a male wood duck.

For a second the boy and the duck stared at each other before the duck flew away. Mouse Face raised his head sadly. "Why isn't my face as handsome as his?" he said to himself. Then Mouse Face got an idea.

That night there was a big ceremony at the Indian Council grounds. The drums began to beat. The campfire burned brightly.

The Indians began to dance. Mouse Face, who used to hide in the shadows, danced proudly, howling as he did. What a sight he was! His cheeks were striped black and white. His face was painted pink and white and yellow. Never before had an Indian been as handsome!

From that night, Mouse Face had a new name—"Wood Duck".

Picture by Dan Zitomer

Wood ducks are the most beautiful ducks in America. Once they were rare. Now—if you have sharp eyes and can keep as quiet as an Indian—you might see them in almost any woodland, along streams and ponds.

Wood ducks like to eat acorns and all kinds of nuts. Their stomachs (or gizzards) have such powerful muscles that they can break the hardest nuts, some that you could barely crack with a hammer! Wood ducks like berries, duckweed and insects. But best of all they like to eat spiders—that's ice cream to them.

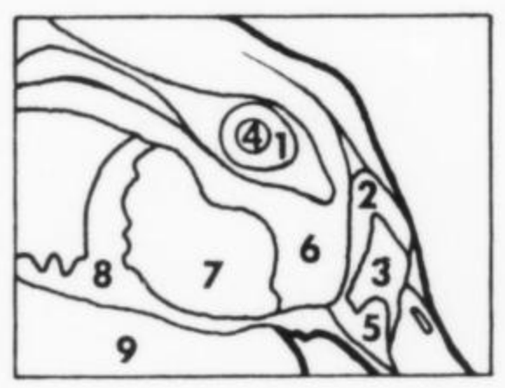
Wood ducks never nest on the ground as most ducks do, but in a big hole in a tree. One mother wood duck tried to make her nest in my chimney. Trees with big holes in them are hard to find.

Sometimes they nest in holes up in trees twice as high as a flagpole. Just think, the baby ducklings must jump to the ground the day they hatch. Generally they don't get hurt, though, because they're light, like little puffs of cotton. The mother stands at the foot of the tree and calls and calls. Like little paratroopers, the ducklings peek out of the hole, then jump quickly, one right after the other, to join their mother, who must hurry them to the pond where they're safe.

Right now, wood ducks are in their winter home in Florida, Louisiana and Texas. But even before spring warms the rest of America, they'll be back, searching everywhere for homes. If you live near a pond or stream and you'd like to have some of these beautiful birds as friends, why don't you and your parents put up wood duck nesting boxes right now? You'll need help, because a duck house is large. It should be about 2 feet high and 10 inches square. If you don't have a tree in or near the water, your dad (or uncle) can cut a hole in the ice and pound a post into the soft mud at the bottom. The post must be strong so that when the duck flies in, it won't wobble. It's best to have the top hinged for easy cleaning. Make the entry hole about four inches in diameter.

*please turn the page*

Picture by Dr. Paul H. Fluck



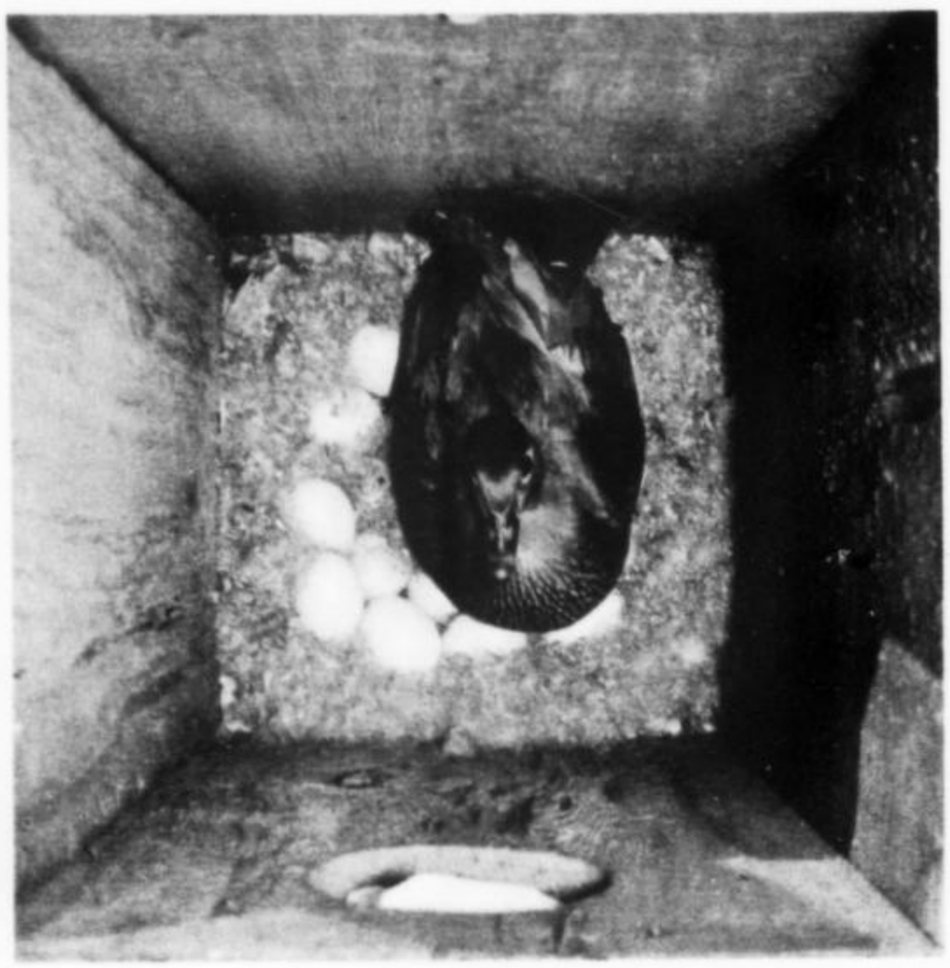

How many colors can you find in the wood duck's face? We found nine. Maybe there are more. What other colors do you see? Would you like to play a game and match the numbers to the colors below?

| | |
|---|---|
| ____Green | ____Pink |
| ____White | ____Black |
| ____Orange | ____Purple |
| ____Red | ____Yellow |
| ____Brown | |

The mother duck comes in at 40 miles an hour.

Use *rough* lumber on the inside so the ducklings can climb up the sides to the hole. Put wood shavings in the bottom in which the duck will lay her eggs. To keep her eggs warm, she covers them with her own feathers. Place the box 10 to 30 feet high.

She keeps the eggs warm for four weeks.



Like little paratroopers, they leap out to join the family on the ground. >

The babies climb the wall and peek out to find a brand-new world. >

Many other animals and birds need houses too. Possibly a mother raccoon will take your duck house for her family unless you make sure animals can't climb the post. The best way to do this is to tie blackberry bushes or a rose bush around the post, about 12 inches below the house. Be careful you don't get scratched. Wear gloves, or let some older person do this for you.

Screech owls, flickers, hooded mergansers and a few other ducks like nesting boxes also. Even if you don't have a wood duck family the first year, some other bird may use it. If you're lucky, though, and if your house is in place before the ice melts, you will have a wood duck family this summer.

When the ducks do come, be sure you don't chase them away by going too close. Never look inside while mother duck is nesting. You can watch with binoculars to your heart's content.

Write and tell us about your wood duck nest and how you built it. Did you make more than one? Who helped you? Was it a club project? How near the lake did you place it? Did you keep people away? Were you lucky enough to get a wood duck family or another wildlife family? Send your letter to Ranger Rick. See Page 33 for the address.

Pictures by Jack Dermid

# Guest from another land

## SLOWPOKE

Just about the laziest animal in the whole world is the sloth from South America. If he moves at all, it's in slow motion. Your baby sister or brother, who is just learning to crawl, goes much faster.

If you urge one, he speeds up to one-third mile an hour. In a race with a turtle, a sloth would get lost in the dust. Being lazy, though, probably keeps the sloth from being eaten.

High in the trees where he spends all his life, he can't be found by his enemies, especially during the rainy season when tiny green plants grow on his coarse fur.

Except when he climbs a tree, the sloth lives upside down, hanging by his legs from a branch. He even sleeps that way. He lives on leaves. His teeth are strong, but he is too slow to be dangerous. All he wants is to be left alone, upside down.

Picture by Walt Disney Productions©
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# BIRD'S DINER

by RICHARD B. FISCHER

Most of the time birds don't *need* to be fed. But in severe winter weather you can be a real pal to them by setting a table with the leftovers from your family meals. Another reason for feeding is to attract the birds to your feeder so that you can study them or photograph them. If you start feeding, continue it because birds who have learned to depend on you might starve if you stop.

Sparrows, juncos and many birds eat on the ground, so just sweep the snow away and scatter bread, cooky or cake crumbs. There is no need for anything fancy. Place table scraps and suet high above the ground or your bird feeder is likely to become a "dog diner."

Make sure the feeder is near some shrubbery where the birds can hide from the danger of cats. You might stand your Christmas tree near the feeder. They'll feel safe in that and they might sleep in it at night.

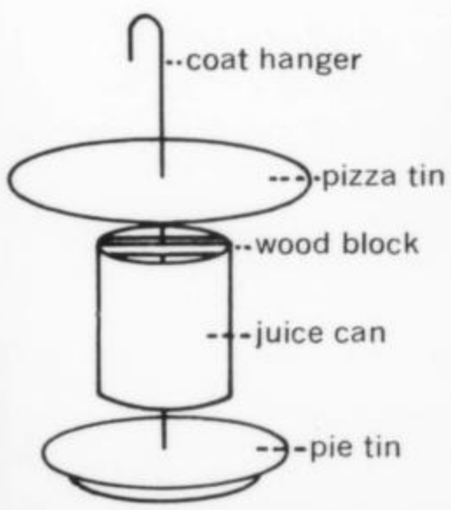
When they get braver, you can move your feeder closer to your window. Birds get very thirsty and will need water. See that they have coarse sand or gravel. That's for their gizzards for grinding up hard food. Canary gravel will do..

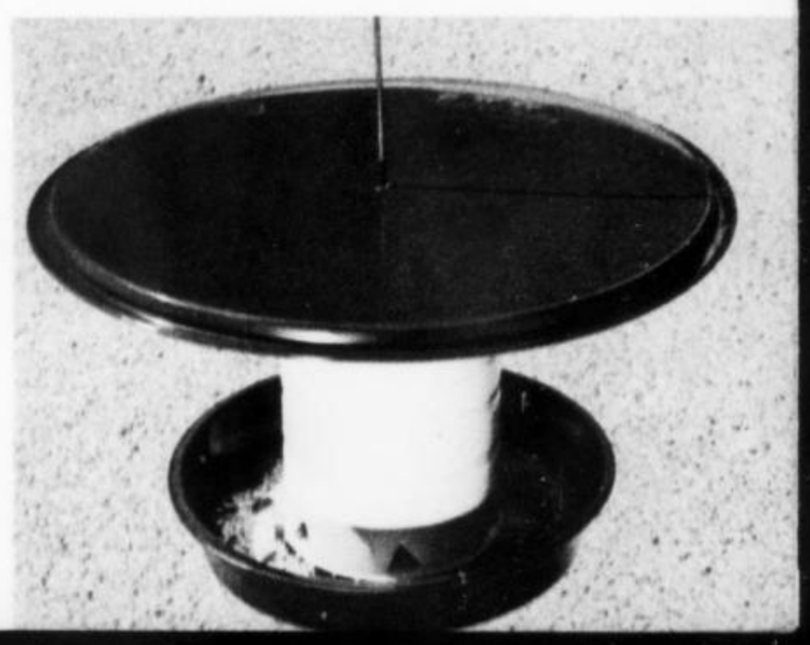
To start the birds coming to your feeder, use crumbs. They are easy to see. House sparrows will be among the first to come and they will guide other birds to your feeder.

You can make a feeder like the one below. You need a large fruit-juice can, a 9-inch pie tin, a 13-inch pizza tin, a coat hanger, a piece of wood 4 inches long and 2 nails about 1 inch long.

Cut the top out of the juice can, punch 4 or 5 holes around the bottom with a soda-can opener. Punch a hole in the center of the bottom of the can, the pie tin and the pizza pan with a nail thicker than a coat hanger. Ask your Dad to drill a hole the same size in the center of the wood. Fasten the wood across the top of the can with the nails. Run the coat hanger through the pie tin; bend the end about one inch under the tin; slip the wire through the hole in the bottom of the can; then through wood. Put the pizza tin on last. Bend the wire into a hook. Fill the feeder with a mixture of sunflower seeds and finely cracked corn and you're ready for the birds.

Keep your field glasses and a bird guide on the window sill and have very exciting times.



**BLUEJAY**

**MOCKINGBIRD**

**JUNCO**

**GROSBEAK**

Photos by Richard B. Fischer and Luther Goldman

# ME

## *MAIN COURSE*

**Toast, finely ground**
robins
many birds

**Bread and cooky crumbs**
bluejays
tree sparrows
juncos
grackles
robins
cardinals

**Peanut butter mixed with cornmeal or smeared on bark or into cones**
chickadees
tree sparrows
juncos
brown creepers
woodpeckers

**Whole corn**
bluejays

## *DESSERT*

**Sunflower seeds**
many birds including less common ones like crossbills, grosbeaks, purple finches

**Water** **Gravel** **No Cats!**

# E NU

## *MAIN COURSE*

**Fruits: apples, bananas, raisins, cherries, oranges, and wild fruit frozen from summer**

mockingbirds
catbirds
thrushes
robins
bluebirds

**Chicken feed and corn, finely ground**

tree, song, fox
and white-throated sparrows
goldfinches
cardinals
chickadees
nuthatches
bluejays

**Suet**

woodpeckers
nuthatches
chickadees

(ground like hamburger, nearly all birds love it)

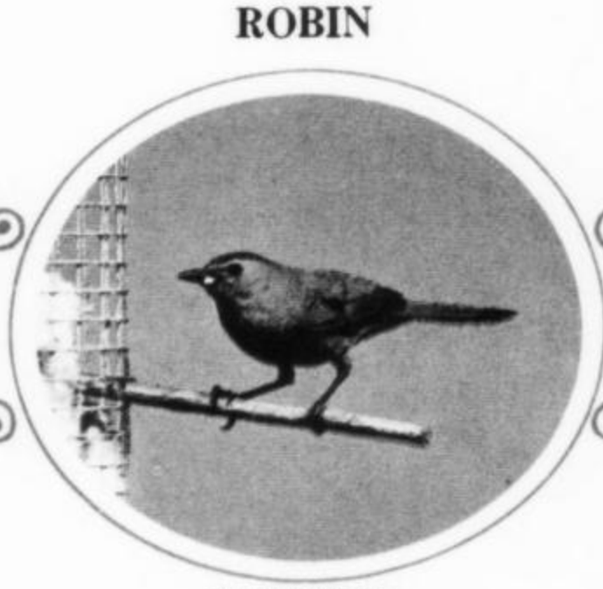
## *LEFTOVERS*

Try these! Some bluejays and starlings like mashed potatoes; some can't stand them. That's like people, isn't it? Try these other leftovers: cottage cheese, baked-potato skins, cheese, sausage. Keep track of which birds like what.

**WOODPECKER**

**NUTHATCH**

**ROBIN**



**CATBIRD**

Art by Jack Weaver

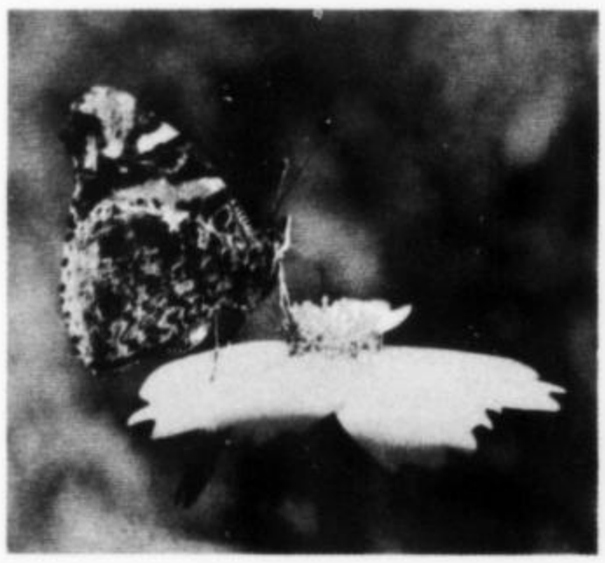
# IS IT A MOTH

Most moths fly at night
around lights.
Some moth antennae or "feelers"
look like feathers or palm fronds.
Others are hairlike.
Moths have fat, thick bodies.
Moth wings look dusty.
Moths are generally pale-colored.
Moths usually rest with their
wings out flat.
The larvae of some moths
spin cocoons.
Most moths hide in the daytime.

Photographs: William L. Self; Hermann Eisenbeiss; Richard B. Fischer; Dr. Paul H. Fluck; Hal H. Harrison.

# H OR A BUTTERFLY?

Butterflies fly by day.
Butterfly antennae look like black pins with knobs on the ends.
Butterfly bodies are slender.
Butterfly wings look like tissue paper.
Butterfly colors are usually bright.
Butterflies usually fold their wings above their backs when resting.
Butterfly larvae form hard cases out of which the adult bursts.
You see butterflies at flowers and mud puddles.
BUT some butterflies are pale; others don't fold their wings. Some moths fly by day and sip at flowers. The above are only general rules.



Now test yourself. Which are these — moths or butterflies? Be careful. All rules have exceptions. Turn the edge of this page for the right answers. Don't peek.

1._____

2._____

3._____

4._____

This is a fritillary butterfly. Notice its long tongue. Some lepidoptera have tongues as long as their whole bodies. If they didn't carry their tongues coiled up beneath their heads, they'd be in a fix, wouldn't they? Did you know that most lepidoptera do their tasting with the soles of their feet?

## ANSWERS

**1.** Notice the clublike antennae. That's one way to tell this is a *butterfly*. The monarch is one of the most common of all butterflies. It can be found around milkweed plants. In the fall it flies far south. Scientists have put little markers on the wings to find out just how far they go in winter.

**2.** This is the spicebush swallowtail *butterfly*. It is one of the large family of swallowtails that are found in nearly every part of the world except the Arctic regions. Notice its slender body and folded wings.

**3.** This is a sphinx *moth*. You can see the heavy body and the dusty look on the wings. Did this one fool you because it was sipping nectar from a flower? Some moths do. You can't make rules that are always true. Many moths never eat. They can't. They don't have any real mouths! But this one, the sphinx, does. You will see it at dusk on petunias and other flowers.

**4.** This is the tiger swallowtail *butterfly*. Isn't that just about a perfect name for it? Notice the slender body and the way the wings are folded above the back. Have you ever seen the white cabbage butterfly or the clouded sulfur? Their names tell something about them, too.

## Meet the Lepidoptera!

If you want to surprise your dad and mother and teacher—well, just about everybody—learn to pronounce that word lep-eh-dop′-ter-ah. Accent the "dop" syllable. Fun, isn't it?

The lepidoptera family is a BIG one. It includes all moths and butterflies. Besides, there are skippers, which are part way between moths and butterflies. Skippers fly by day but have mostly dull-colored wings. At rest, their wings are halfway up and halfway down, at an angle, about the way divers hold their arms in a swan dive. Skipper antennae have knobs like butterflies but with a little hook at the very end. Often scientists can't agree on how to classify some insects.

Lepidoptera wings are covered with tiny scales that rub off and make them slippery when something tries to catch them.

Lepidoptera use their antennae to smell. You can tell a male from a female moth by their antennae. The male has much thicker, longer ones than the female.

Lepidoptera taste mainly with the soles of their feet. When their feet taste something good—like nectar—the long tongue unrolls and dips into the food and sucks it up the way you do when you drink a chocolate milkshake.

When summer comes, you're going to have fun learning to know the lepidoptera better than you do now.

ADVENTURE I: How We Saved Benny Bass

# Ranger Rick And His Friends

Pictures by Lorin Thompson

Hi! I'm Ranger Rick. My friends and I live in Deep Green Wood on the edge of Storyland.

We can do things you might not expect of animals. But that's what comes of living next door to Peter Rabbit, Br'er Fox and your other book friends. Some of their magic has spilled over on us.

Our adventures really began when we started our Ranger Patrol. And here is how it happened . . .

1 Early one morning I woke to a chattering outside my den in Hollow Oak. My friends were trying to decide the best thing to do on such a wonderful day.

"We haven't been to Shady Pond for a long time," I said.

"Let's go!" cried Oscar Rabbit.

"Who-oo's missing?" called Wise Old Owl. And Bluey Jay screamed the news to Cubby Bear and Davey Deer.

2 It must have been then that Wally Wolf got the news of our plans too.

As we came near a dark bend in the trail, I saw Wally's tail behind a tree up ahead. It would not be safe to go around that bend, and it was too late to run. I had to play it cool.

"Let's stop here while Bluey flies up Clear Creek to get Ollie Otter," I said.

I had an idea. But I needed the help of Pudgy Porcupine and Odora Skunk. We went into a huddle, then they sneaked into the woods.

3 I gave Pudgy and Odora time to get near Wally. Then I ran toward him yelling, "WHA-HO-O-O!" so he would not hear Pudgy creeping up close behind.

Then Odora stepped out in front of Wally and raised her tail like a danger flag. Pudgy had made her promise not to spray, but Wally didn't know that. He moved back—*but fast.* When he hit Pudgy's quills, he shot up like a rocket and ran howling into the woods.

4 At Shady Pond we had a terrible shock. Trash of all kinds, everywhere!

Cubby Bear tripped on an old tire and landed on his nose. "Oh what a neat nosedive," giggled Ollie.

Benny and Terry Turtle told us about Litterbugs going there for picnics. When the mess got too bad, even *they* didn't come back.

Benny Bass was gasping for breath in his cluttered home. There was hardly room for him to swim and not much for him to eat. We must save Benny's home. I knew we had to do something fast.

5 I called all my friends together and said, "We have work to do! Everyone can help by doing whatever he does best.

"Chet Chipmunk and Sammy Squirrel can climb trees and gnaw vines for rope. Davey and the birds can bring the vines here.

"We need holes to bury trash in. Mollie Mole, you're in charge of the diggers. Cubby and Oscar can line up lifters and pushers large and small.

"We need divers and swimmers to get the pond bottom cleared."

6 Sam and Chet, on Davey's back, brought vines so Zelda and I could make nets. The birds brought more vines and helped Odora and Patty Packrat twist them into ropes.

Ollie dived for big things and passed them to Cubby. Cubby laughed when oil dripped on Ollie from a can he brought up.

Freddy Frog put cans into a net on Terry Turtle's back. Rudy Duck held the net together at the top.

8 Then I jumped up on a stump and said, "Other people will be using our woods. Some may be Litterbugs or Firebugs. We must work together to keep the woods fun and safe for everyone. How about being a real Ranger Patrol?"

Ollie Otter saluted and said, "Ranger Rick, will you be our leader?"

Everyone cheered. That was the first of many adventures of the Deep Green Wood Ranger Patrol.

7 At last Shady Pond was clean and beautiful again.

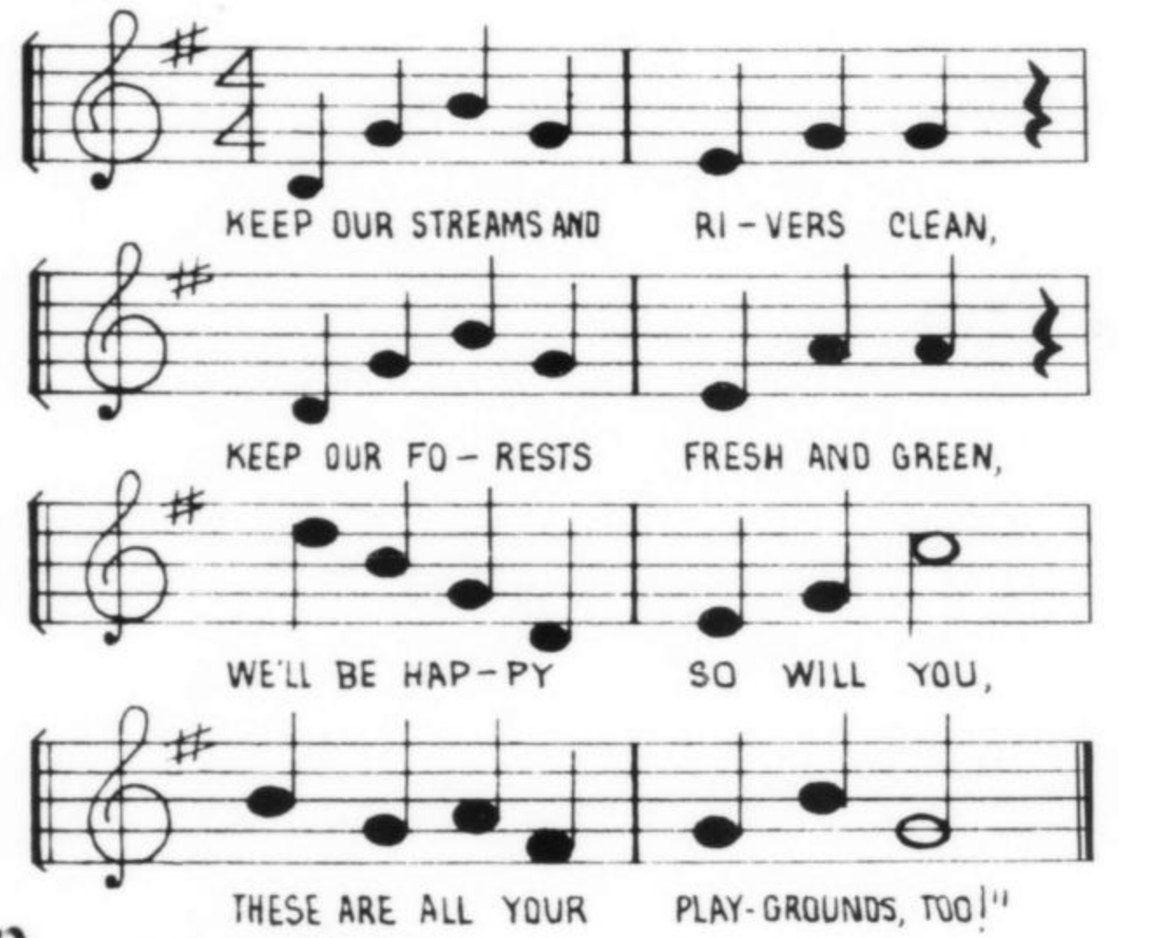
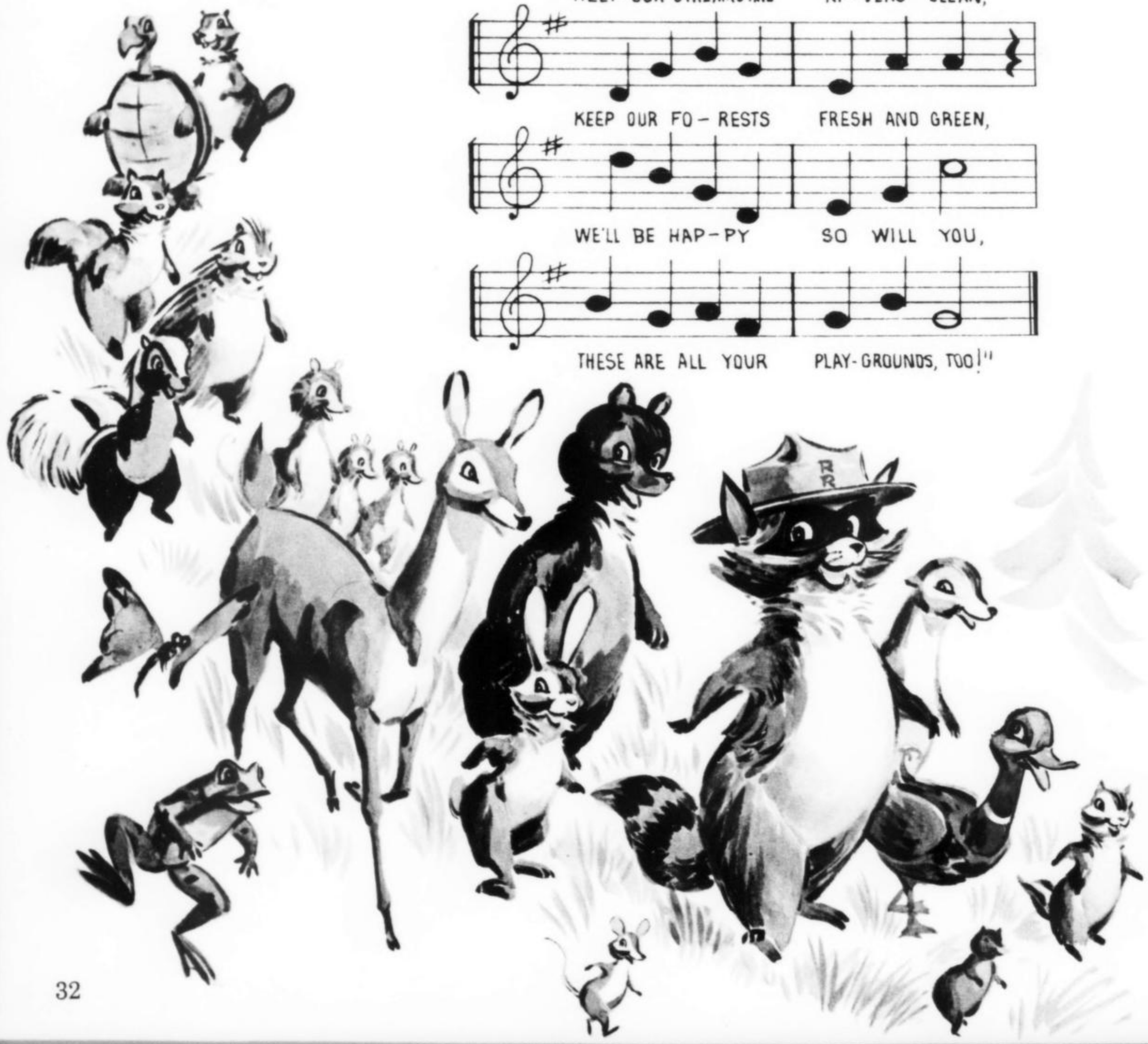
Benny Bass swam by and said, "Now I can breathe and find good food. Thank you everybody."

I was so happy I sang the first words that popped into my head, "Keep our streams and rivers clean!"

Davey picked up the tune but sang, "Keep our forests fresh and green!"

I came back with, "We'll be happy, so will you. These are all your playgrounds, too!"

We sang it again. Soon all the others had come to join in with us.

# Ranger Rick's marching song

KEEP OUR STREAMS AND RI-VERS CLEAN,
KEEP OUR FO-RESTS FRESH AND GREEN,
WE'LL BE HAP-PY SO WILL YOU,
THESE ARE ALL YOUR PLAY-GROUNDS, TOO!"

# Ranger Rick's NATURE CLUB

## Ranger Rick

presents

this official certificate

of

CHARTER MEMBERSHIP

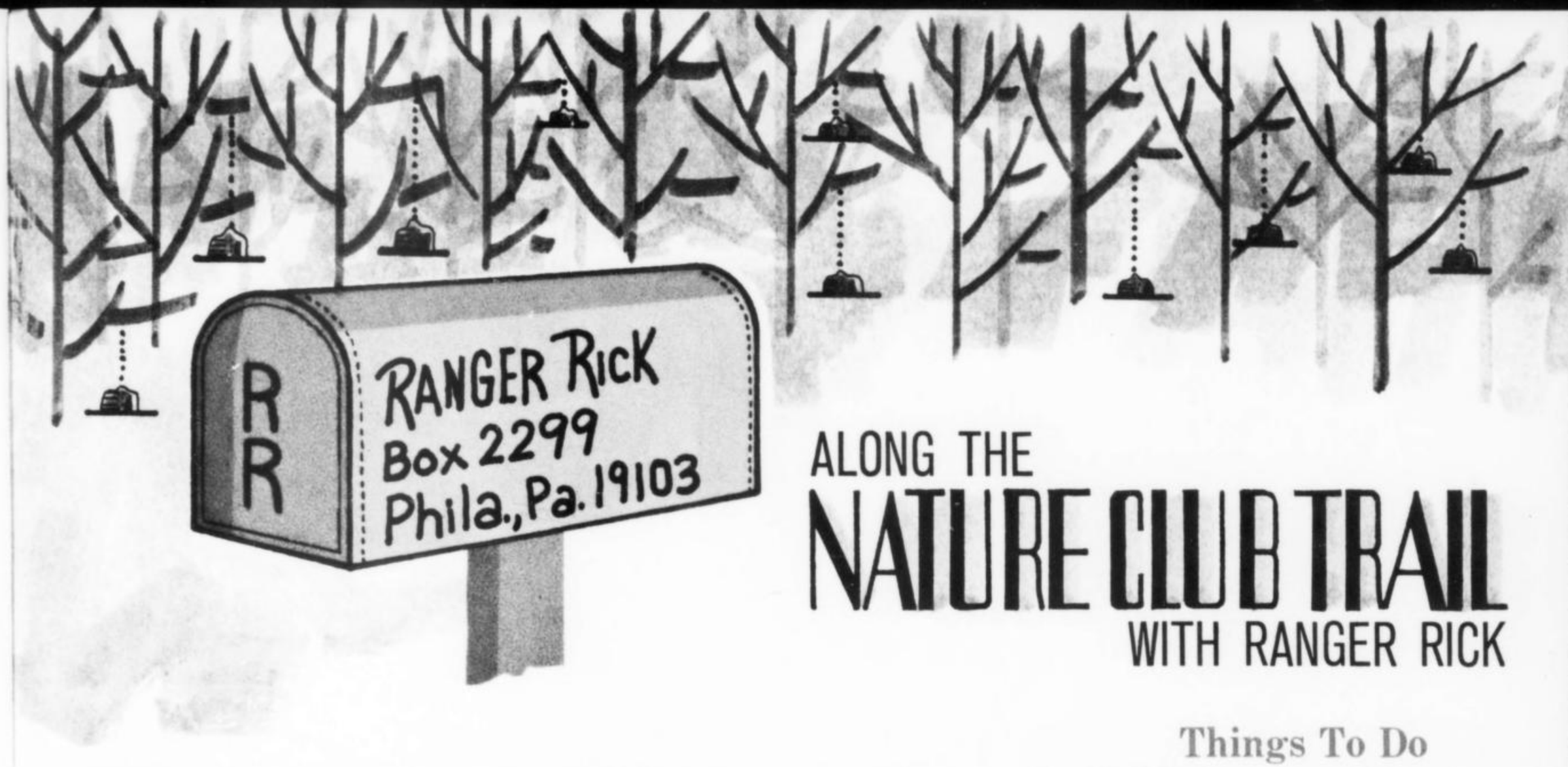
to

_____

THIS CERTIFICATE IS GIVEN IN GRATEFUL APPRECIATION OF THE ASSISTANCE GIVEN IN THE FOUNDING OF RANGER RICK'S NATURE CLUB

ESTABLISHED
JANUARY 1, 1967

*RangerRick*




# ALONG THE NATURE CLUB TRAIL WITH RANGER RICK

WISE Old Owl, Ollie Otter and all my friends of Deep Green Wood welcome you to Ranger Rick's Nature Club. Me, too! The Charter Membership Certificate is your ticket to fun and adventure along the Nature Club Trail. You can take it out of your magazine and frame it.

Some of the stories and pictures in your magazine will be like a microscope to show you things that are too small for your eyes to see. Others will be like a telescope for seeing far away. You will find things to make and do and explore and prove. There are facts to share with your family, friends and classmates. There are projects to use in your Cub or Brownie Troop and things to do when you start a Nature Club of your own.

All of the two million members of the National Wildlife Federation welcome you, too. They made this magazine come true. They want it to open new doors for you to the wonderful world of Nature.

But remember this: We'd like *you* to help make this magazine—with the questions you send to Wise Old Owl, the fun-things you trade with Ollie Otter, and the letters and pictures you send to me.

RANGER RICK

## Things To Do

You will find a Ranger Hat like this in four other places on the next two pages. They mark the things you can do such as drawing, writing, collecting things or taking snapshots. Then send them to me and I will use some of them on the Nature Club pages. BE SURE TO PUT YOUR NAME, AGE and ADDRESS on anything you send. My address is on my mailbox at the top of this page. Sorry, we can't return anything.

## Fun With a Twig Collection

Guess what this is. Did you say the face of an elf? Actually it is what you would see if you looked at a black-walnut twig with a magnifying glass. The tiny cap is the bud for this year's leaf. The face is the scar left by last year's leaf.

Late in summer, as nights grow longer and chillier, a corky layer forms where the leaf joins the stem. The leaf can no longer get water through the tiny pipelines that connect it to the twig. The leaf loses its green color. Then you can see the other colors in it—yellow, red, brown. Finally, it drops off.

If you collect twigs from different trees and look at them with a magnifying glass, you will find funny shapes and sometimes faces in the leaf scars. Most kinds of trees have their own special mark.

It may surprise you to find that the twigs you can now collect already have buds on them. These formed even before the old leaves dropped off. All winter the buds are protected by weatherproof cases. In the spring the buds open and new leaves grow.

Winter is the best time to make a twig collection. Try to find out the name of each tree from which you get a twig. Make drawings of two or three of your favorites. They don't all have to look like faces to be interesting. Tell me what they look like to you and the names of the trees from which they came.

## Draw Your Favorite Bird

When you feed the birds this winter, you will get to know them well enough to learn their names and even to make drawings of them. Pick your favorite drawing and send it to me with the name of the bird. Use crayons, paint or whatever you like.

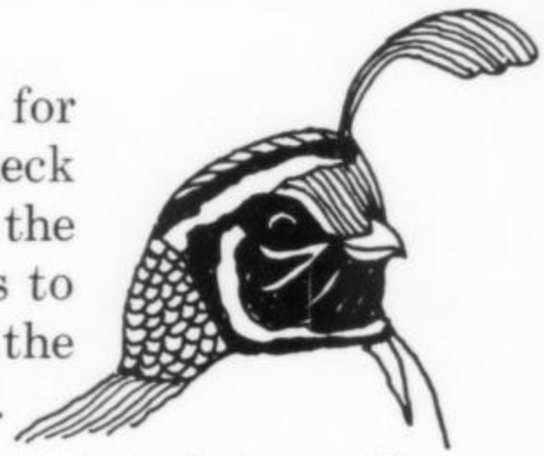
## Bird-Feeder Snapshots

I hope you Rangers who are photographers will send me snapshots of your bird feeders, whether you make the one described on Page 23, or you make or have some other kinds. Perhaps if you are patient you will be able to take a picture of the birds while they are feeding.

---

## It Pays to Know Bills . . .

bird bills, that is. They are specially shaped tools for getting the kind of food each bird likes best. Check some of the facts below while you are watching the birds at your feeder. Another thing you can do is to look at other birds in this issue and try to guess the feeding habits of each bird by looking at its bill.



Cardinals have built-in "seed-crackers," a short-thick bill. Look for other birds with bills like it and see if seeds are their favorite foods.

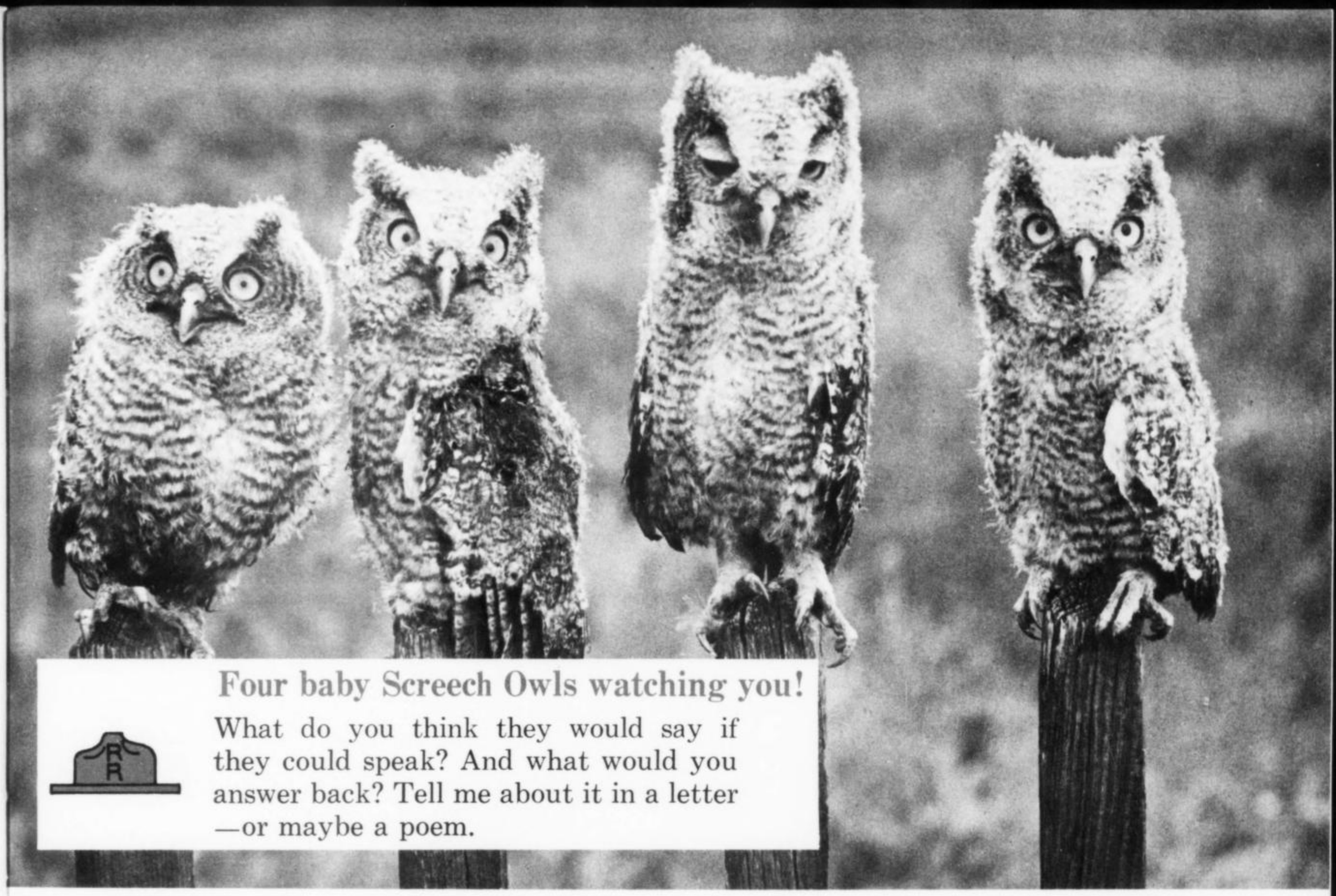
Swallows have small bills and wide mouths. While the birds are flying they scoop in insects.

The hummingbird's bill is long with a needle-tip to probe for nectar deep in flowers.

The bill of the quail, or bobwhite, is like a chicken's bill. Both need short, tough, horny bills for pecking at seeds and insects on the ground.

Woodpeckers' bills are like long, sharp chisels. Look for holes in trees where they have bored into the bark for grubs.

Warblers have slender, pointed bills. When you see a bill like this its owner is an insect eater.



**Four baby Screech Owls watching you!**

What do you think they would say if they could speak? And what would you answer back? Tell me about it in a letter —or maybe a poem.

## Keep Our Streams and Rivers Clean

Those words above are, as you probably know by now, the first line of our new Ranger Marching Song. I'd like to tell you just how BIG those six little words are.

Think of clean, cool rain. Think of the white snow on mountaintops. Water is clean when it starts on its journey down our streams and rivers. But wherever men live the water does not stay clean. You may have seen brown, yellow or foamy white patches in rivers that flow past factories and towns. You may have noticed slick oily patches spreading over streams.

Waste from some cities and factories not only spoils swimming and boating for people but also kills fish or drives them upstream. Oil on the water keeps air from getting into it. This kills plants and animals living in the water. When ducks and geese alight on rivers and lakes to feed, the oil gets on their feathers causing thousands of them to die.

Now there are laws to stop some of this spoiling of water. At the National Wildlife Federation headquarters in Washington, D.C., there are men who keep track of such laws as they go through Congress. When the laws are passed, our members are informed so that they can watch to see that the laws are obeyed.

We Rangers can help see that rivers, streams and lakes near where we live are kept clean. We can do this by not acting as the Litterbugs did at Shady Pond. When we see water being spoiled, we can ask parents and teachers to help us find which laws we have to prevent it, and how these laws can be put to work in our communities.

# Ollie Otter's FUN and GAMES

How do you spell "hard water" in three letters? If you're just learning to ice skate, I bet you know that one. Yes, I—C—E. And that reminds me of a riddle or so.

What gets larger the more you take away? (A hole.)

What can you hold without touching? (Your breath.)

Why is a river rich? (It has two banks.)

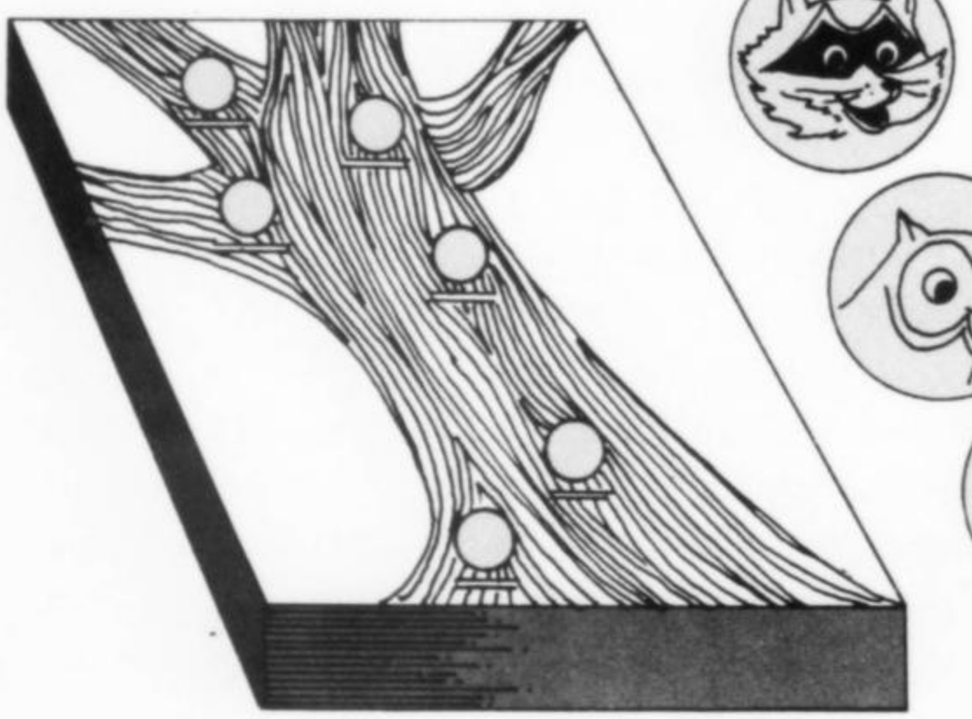
What kind of bush does a rabbit sit under when it rains? (A wet bush.)

Which is the smartest vegetable? (Lettuce, because it's all head.)

It has a trunk but not any clothes; it has needles, but never sews. What is it? (A pine tree.)

What tree grows on animals? (Fir, *fur*.)

Which is faster, heat or cold? (Heat, because you can catch cold.)

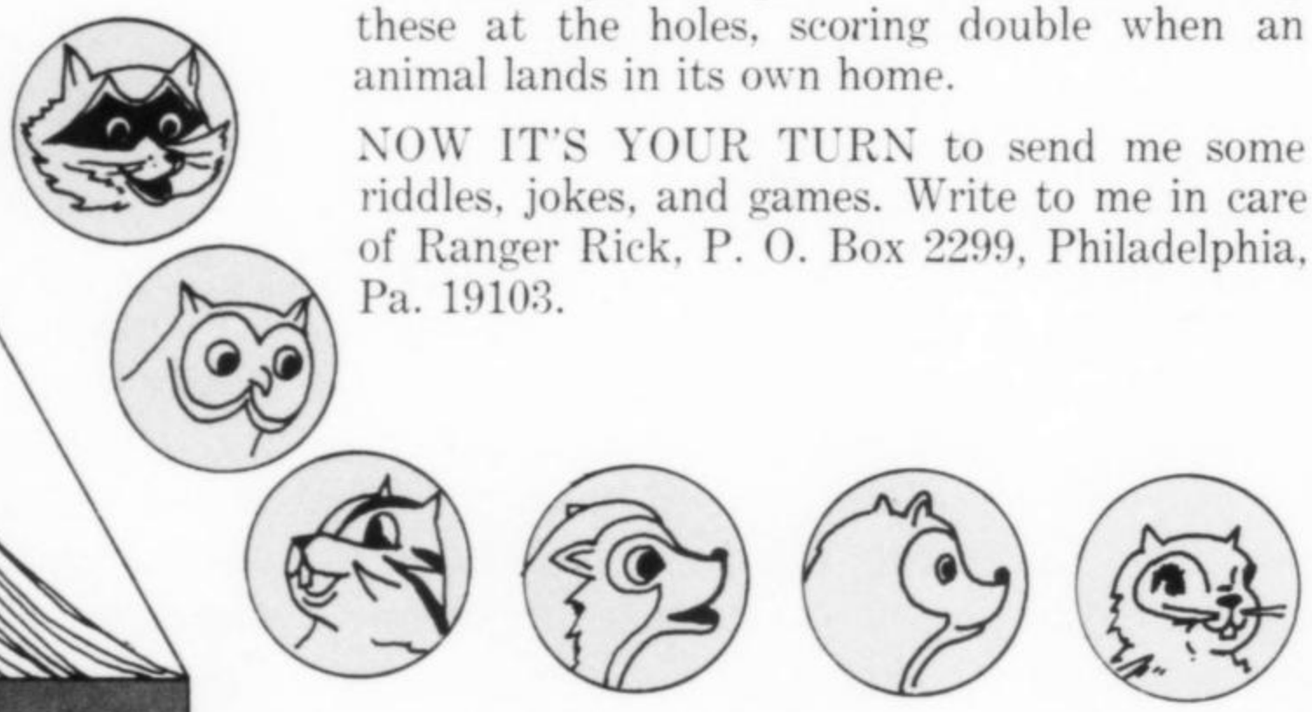


## Hollow-Tree Apartments

You can make a toss-game in a jiffy out of things around the house. You need a shoebox and several small cans or cardboard tubes. If cans have sharp edges, cover them with masking tape. On the box lid trace around the bottoms of the cans or tubes and cut holes for them to fit into. Draw a different-colored band around each hole, using crayons or felt marking pens. Color six beans to match each hole. Put all the beans in a paper cup and let players take turns drawing one to toss at the openings. Score five for each bean that falls into a hole—and double if the bean and hole opening are the same color.

To make this game fancier for a party or club meeting, use a dress box. Paste shelf or wrapping paper over it and draw a big old hollow tree as in the picture. Sink cans or tubes in the tree to make homes for such animals as Rick Raccoon, Wise Old Owl, Sammy Squirrel, Chet Chipmunk, Odora Skunk and Zelda Possum. Make name signs for their doorways. Paste pictures of the animals on old checkers or several circles of cardboard glued together. Take turns tossing these at the holes, scoring double when an animal lands in its own home.

NOW IT'S YOUR TURN to send me some riddles, jokes, and games. Write to me in care of Ranger Rick, P. O. Box 2299, Philadelphia, Pa. 19103.



# WHO-O-O KNOWS

by Wise Old Owl

You have three answers to choose from for each question. Fill in the one you think is right. Check your answer with Quiz Clues below.

1. A Porcupine has_____quills.
(1000—10,000—30,000)

2. A Skunk has true aim with her spray-gun up to_____feet. (5—15—30)

3. A Beaver steers himself through the water with his_____. (Head—Tail—Feet)

4. An Otter is a champion at_____.
(Swimming—Running—Climbing)

5. A Chipmunk has built-in food pockets in his_____. (Paws—Chest—Cheeks)

6. An Opossum has new babies that are the size of a_____.
(Bean—Lemon—Grapefruit)

### QUIZ CLUES

1. A PORCUPINE has quills everywhere but on his face, legs, belly and under his tail. More grow in when any are lost, so his armor stays at about 30,000 quills. He sticks them straight up when attacked. He does not "shoot" his quills but they come out easily when an animal touches him or is walloped by his tail. They are harder to get out than fishhooks.

2. A SKUNK bravely faces its enemies and gives fair warning by raising its black and white tail. The smart enemies run away. If not, the skunk whirls around and shoots stinging, smelly liquid at his tormentor's face and eyes. There is enough for four or five shots in a row. A skunk's aim is true up to 15 feet.

3. A BEAVER'S tail is scaly and shaped like a canoe paddle. It is his rudder for steering. He slaps the water with his tail to signal *danger*.

4. OTTERS love to clown around under water. They play Follow the Leader and pop to the surface to rub noses. Their webbed feet, whip-like tails and streamlined shape make them champion swimmers.

5. CHIPMUNKS can cram a heaping tablespoonful of seeds—or four acorns—in each cheek pouch. Sometimes they bury acorns and forget where they have hidden them. They are among our best tree planters.

6. AN OPOSSUM has bean-sized babies that are born blind and have only nubbins for legs. The front nubbins have tiny claws with which they can pull themselves up the track in her fur that their mother has licked for them. As soon as they are born, they climb to the pouch in her belly and cling to one of the nipples inside. Sometimes there are seventeen babies, so only the strongest live.

### THE QUESTION BOX

What is the most beautiful duck in America? Why does the brave skunk turn its back on its enemies?

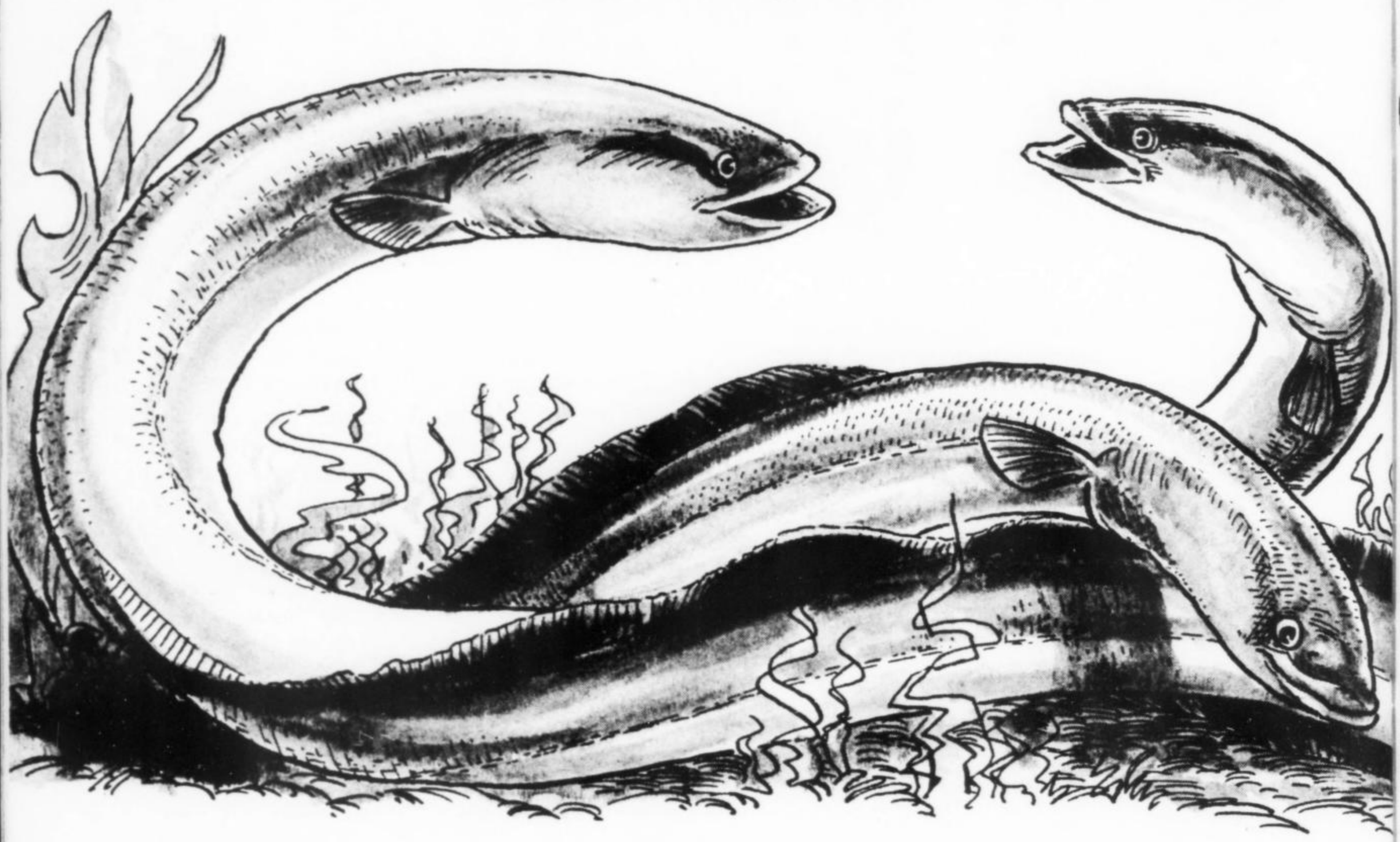
The answers to these questions and many others are in this issue of RANGER RICK'S NATURE MAGAZINE.

But you will have many more questions of your own. Send them to me in care of Ranger Rick. His address is on his mailbox at the top of Page 33. The experts at National Wildlife Federation and I will choose one or two to answer each month in this box—or in other parts of the magazine if the answer is a long one.

Yours for finding out WHAT, WHY, HOW and WHO-OO!

*Wise Old Owl*

**Eels are strange creatures. They look like snakes. They move like snakes. But they are fish.**



# THE EEL'S SECRET

For thousands of years eels had a secret. How were young eels born? Where were they born? Nobody knew. Nobody had ever seen an eel egg. Nobody had ever seen a baby eel. The secret of the eels was found far from their fresh-water homes.

Out in the Atlantic Ocean men had seen fish that looked like tiny glass leaves. Two men caught a few of these fish and kept them in a tank of water. The men had a surprise. The fish turned into little eels.

Now men knew that eels came from the sea. But how did they get there? A man named Johannes Schmidt wanted to find out. He asked ships' captains to help him. The captains watched for the tiny glass fish. They caught many for Dr. Schmidt. For 17 years he studied them. At last he knew the secret of the eels.

Female eels live most of their lives far from the sea. They live in fresh-water ponds and rivers and streams. Some even

live in wells. They can wriggle overland in the wet grass at night. When the time comes for them to lay their eggs, they swim down the rivers to the ocean. There the male eels are waiting for them. Together they swim and swim until they come to a place called the Sargasso Sea. All the eels from Europe and America go there. And there, deep in the sea, they lay their eggs and then die.

After a week the eggs hatch. The baby eels now look like glass leaves. The baby American eels float and swim toward America. The baby European eels move toward Europe. No one knows how this can be. That is one secret the eels still keep to themselves.

Before they reach the rivers, the little glass fish change into little eels called "elvers." The females leave the males in the ocean and swim up the rivers to live and grow strong and fat. One day, when they are between five and ten years old, they start back down the rivers. They meet the waiting male eels in the ocean. Together they will make the long, long journey back to the Sargasso Sea.

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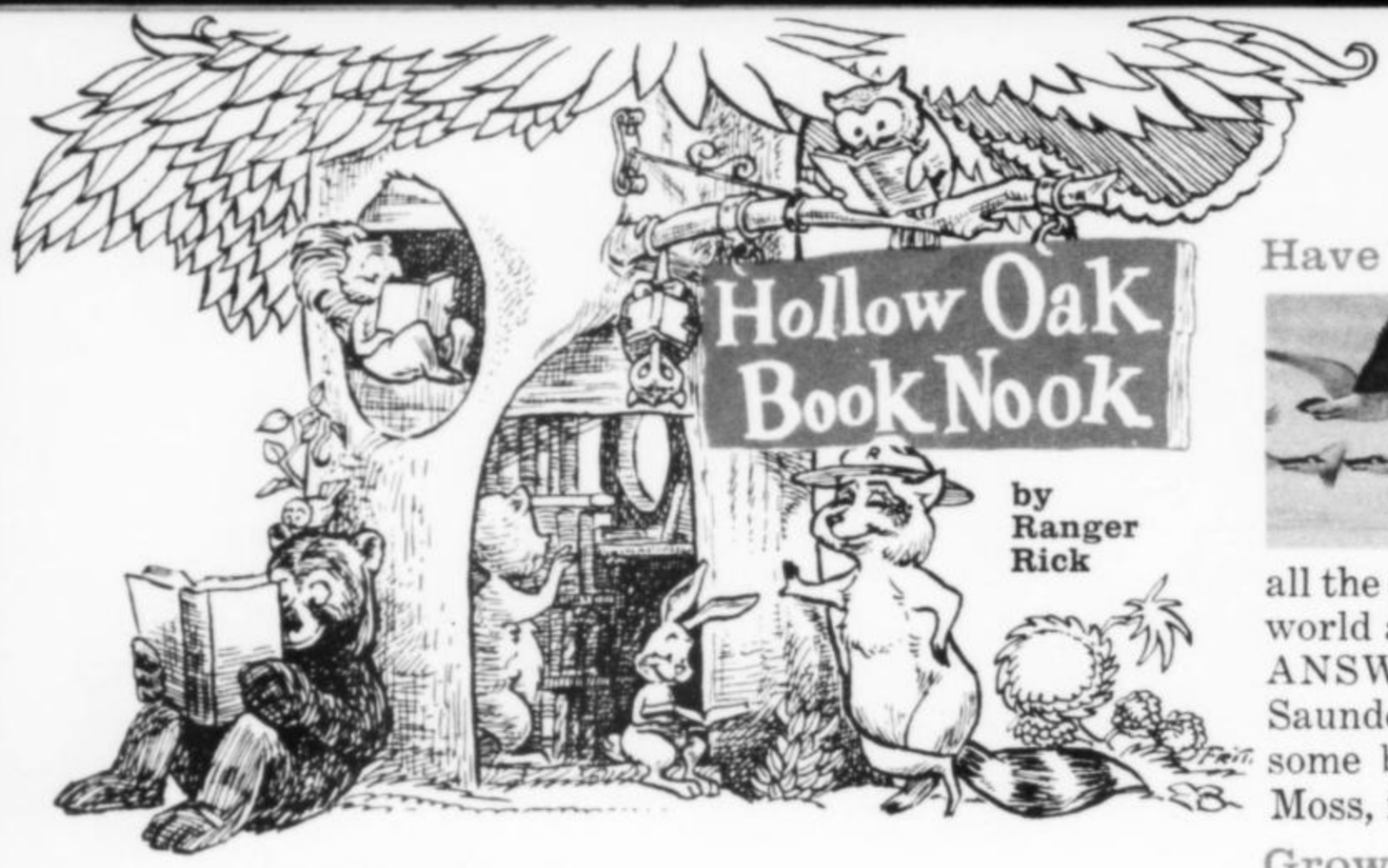



*Dear Member:*

*Did you know we had a library here in the Deep Green Wood? Our shelves are set up in an old hollow oak tree over near Shady Pond, so we call it the Hollow Oak Book Nook. Just about every animal in our Ranger Patrol comes here to read and enjoy the books we've collected, and since you're now a member of our Nature Club, you can order books from our library, too. As librarian, I'll be telling you about the books I think you'll find especially interesting and enjoyable – if you want to have any of them sent to you, you'll find out how on the attached order form.*

*And now it's time to look at our book choices for January:*

Just about the most popular book in the Book Nook these days is ANIMALS DO THE STRANGEST THINGS by Leonora and Arthur Hornblow. It's filled with astonishing and little-known facts about some very well-known animals, and most of the Deep Green Wood group have come to the Nook to read about themselves and each other. (Even old Wally Wolf slipped in one day to read the fascinating chapter about the way wolves hunt.)

Did you know that elephants keep cool by using their big, flappy ears as fans? Or that sea otters, Ollie Otter's cousins, break the shells of the shellfish they want to eat by lying on their backs in the water, putting little rocks on their stomachs, and banging the shells against the rocks until they crack open? Find out all about it in ANIMALS DO THE STRANGEST THINGS. The words are so easy you can read them all by yourself, and you'll love Michael K. Frith's drawings!

## Have You Ever Wondered?

How does a spider spin his web? What makes a rainbow? How do fireflies light up? How can birds fly? What does dust come from? What causes the seasons?

The answers to these and just about all the other questions you can think of about the world around us are in THE QUESTION AND ANSWER BOOK OF NATURE by John R. Saunders. If you're the curious sort, this handsome book, illustrated in full color by Donald Moss, is perfect for you.

## Grow-It-Yourself...

How would you like to grow green grass on a sponge? Grow a red-white-and-blue American Flag garden? Grow plants that eat insects? Grow your own salads? How would you like to save garden fragrance all year around?

You'll learn all this and more in THE INDOOR AND OUTDOOR GROW IT BOOK by Samm Sinclair Baker. Gardening is a fascinating hobby, and you can do it anywhere, in city or country, in your backyard or on your windowsill. Just the look on your friends' faces when you show them the huge vine you can grow from one little sweet potato is more than worth the price of the book.

## To The Woods...

And now a book that leads us to many a forest nook and cranny usually missed by those of us who don't know how or where to look. It's THE TALE OF A WOOD, written, and with drawings and photographs, by Henry B. Kane. Through the eyes of a lively, curious boy who knows the woods inside out, we see the graceful dance of the Promethea moths, we surprise a family of raccoons in an old carriage house (that, of course, is *my* favorite chapter), we meet the shy fox and the sleepy owl, we are given a close-up view of the exciting goings-on inside a hornet's nest, etc., etc., etc.

Here, in short, is a really beautiful record of the animals, birds, insects, and plants that make the woods their home.

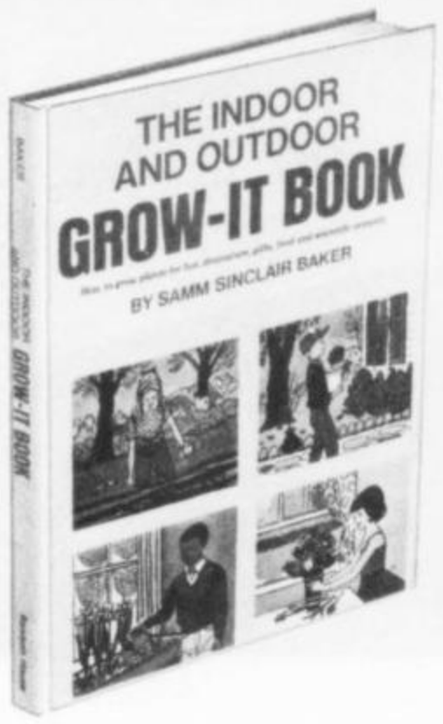
Well, that's all the room we have. I'll be writing you again next month.

Best, RANGER RICK

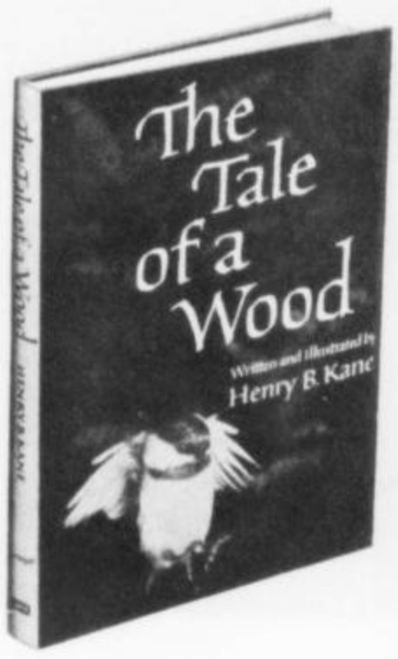
# Hollow Oak Book Nook **Selections for January**

**62006 THE QUESTION AND ANSWER BOOK OF NATURE**
by John R. Saunders, Illustrated by Donald Moss. For Ages 4 through 10. (Pub. Ed. $1.95) **$1.60**

**62015 ANIMALS DO THE STRANGEST THINGS**
by Leonora and Arthur Hornblow, Illustrated by Michael K. Frith. A "Step-Up Book" for children 7 and up to read "all by themselves." (Pub. Ed. $1.95) **$1.60**




**62033 THE INDOOR AND OUTDOOR GROW-IT BOOK**
by Samm Sinclair Baker. Illustrated by Eric Carle. For children of all ages. (Pub. Ed. $3.00) **$2.35**




**62024 THE TALE OF A WOOD**
written and illustrated by Henry B. Kane. For Ages 8 through 12. (Pub. Ed. $3.00) **$2.35**

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*Dear Member*

*Please ask your parents to assist you in completing this form and preparing your payment.*

# Peepers and other Winter Sleepers

by Will Barker

Where is the peeper? His little voice is the first promise of spring. He's fast asleep beneath the moss of the pond's edge. You just couldn't wake him up even if you were to shout at him, pinch him, or shake him. He's sleepier than you are on the Monday morning of the first week of school!

His sleeping isn't the same as yours or mine. His breathing and his heartbeat almost stop. He is hibernating.

Turtles, too, are winter sleepers. The red-eared turtle burrows deep into the bottom mud of a pond or stream. Now he is safe from the cold world above. The box turtle hibernates on land in dry, loose soil out of reach of the cold fingers of frost. For nearly half the year he sleeps as if he were dead. Then in April he digs his way out again.

The garter snake sleeps in a winter hideaway three or more feet deep in a crevice or burrow, safe from the cold.

Frogs, turtles and snakes are cold-blooded. They have no body heat of their own. If they didn't hibernate in warm places, they would freeze to death.

## WOODCHUCK AND HIS COUSINS

Some kinds of warm-blooded animals hibernate, but for a different reason. In winter the woodchuck would find no grass and very little grain. So he stores his food. Can you guess where? Under his skin, in thick layers of fat!

During the summer and fall he eats all the grass and grain he can hold—and then some more. He grows fatter and fatter until he can barely waddle. Just before he settles down for his long sleep, he stops all eating. For a few days he does nothing. He stays near the entrance to his burrow. Then one day, as if someone had blown a whistle, he goes underground to the highest room of his system of tunnels and rooms.

*please turn the page*

# Peepers and Sleepers *continued*

He rolls himself into a ball, his head tucked between his short hind legs, his nose against the fur of his belly. His short tail goes up over his head and down along his back. His eyelids and lips are shut tight. Now he is ready to hibernate.

At first he sleeps lightly. If you stomped on the ground above him, he might wake up. He breathes about as often as you do, 50 times a minute or 3000 an hour. But then something strange happens. His breathing slows down. His pulse grows faint. His temperature drops from 100°F (slightly warmer than yours) to 57° and even 40°. That's not much warmer than freezing! The more soundly he sleeps, the more slowly he breathes. Finally he breathes at the rate of only ten times an hour. Now the woodchuck is truly hibernating.

Western cousins of the woodchuck—the yellow-bellied marmot and the hoary marmot—hibernate for as long as seven and one-half months.

Bats hibernate too. Those pug-nosed little flying mammals seek some safe place, usually a cave or attic or old building where the temperature is no lower than 30°F nor higher than 40°. There they hang upside-down for the winter. As the bat begins to hibernate, it breathes more and more slowly. Finally it draws only one breath every five minutes. The bat's body temperature drops until it is sometimes only one degree higher than that of the surrounding air. The bat's body is nearly frozen!

### BEES, BEETLES AND WOOLLY BEARS

The young queen bumblebee is the only one in her colony who lives over winter. She sleeps through the cold months tucked into moss along a stream, or into a rocky crevice. Some kinds of bumblebees begin to hibernate as early as mid-July. Others wait until mid-October.

The ladybug (the correct name is lady beetle) is another insect hibernator. In the West, lady beetles fly to mountaintops by the thousands and settle down together for their winter nap, covering shrubs and bushes. In the East, they hibernate singly, each one settling down in the crack of a chimney or foundation of a house.

Do you remember the little woolly bear caterpillar you saw last fall as it was hurrying across the road? Right now this fuzzy little insect with its bands of reddish brown and black is snug under a pile of leaves or trash, curled up into a tight little ball. There it will stay until the warming rays of the sun signal that winter is over. In summer it will change into a moth, the Isabella tiger moth. The woolly bear is one of the few moths or butterflies that hibernate as larvae. Most of them spend the winter as a pupae encased in a chrysalis.

### HOW SPIDERS SPEND THE WINTER

The tiny spiderlings of the black and yellow garden spiders are still snug inside their eggs during winter. Around the eggs is a silken cup, and around the cup is another silken case. Both cup and case were woven by the female. She hibernates alone, tucked into a crevice and wrapped in a silk blanket of her own spinning.

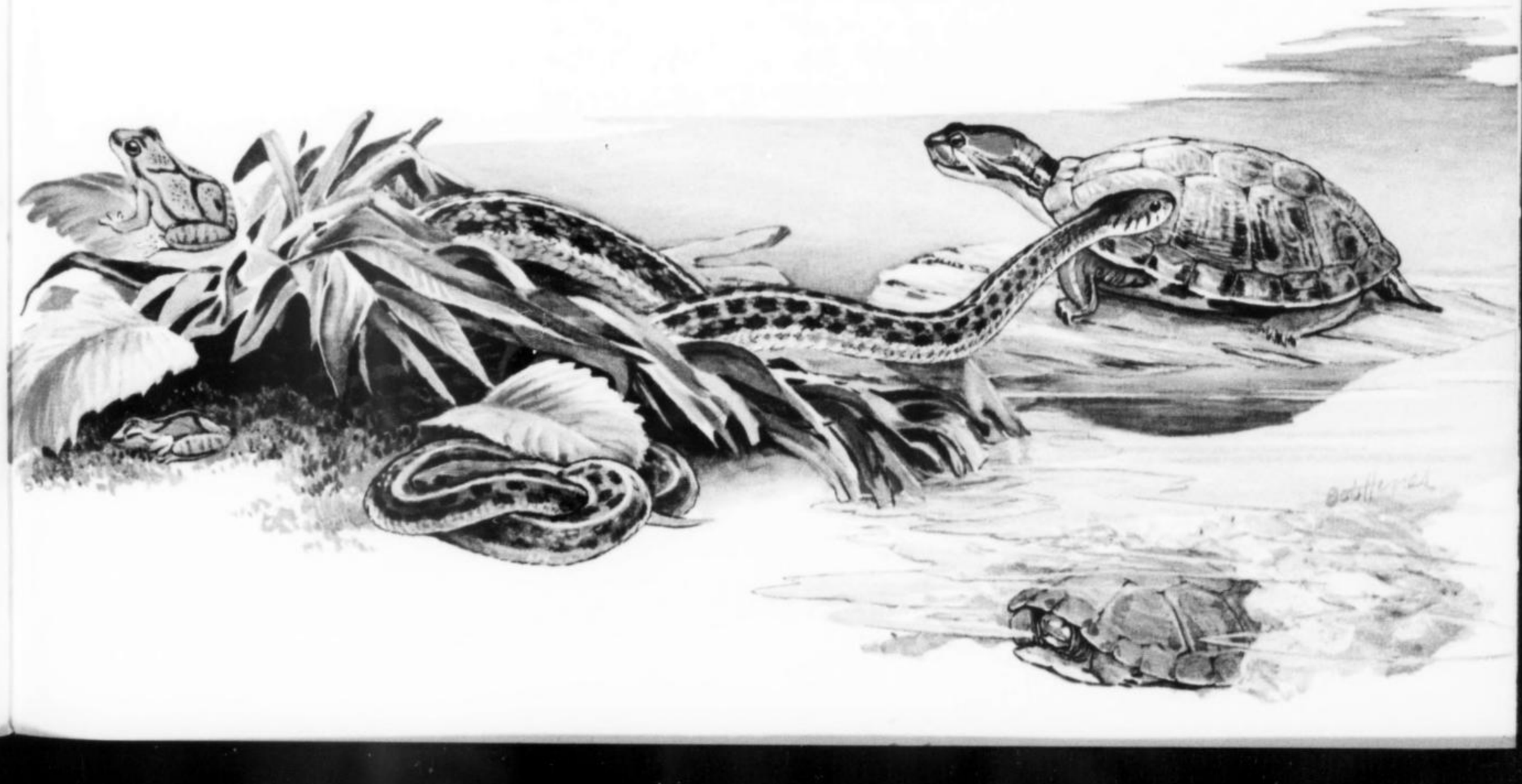
The deep sleep of hibernation is one of Nature's miracles. Once winter is over, these sleepyheads will wake. One day you will hear that first faint whisper of the spring peeper, a reminder that "the earth's sleep is not the sleep of death."

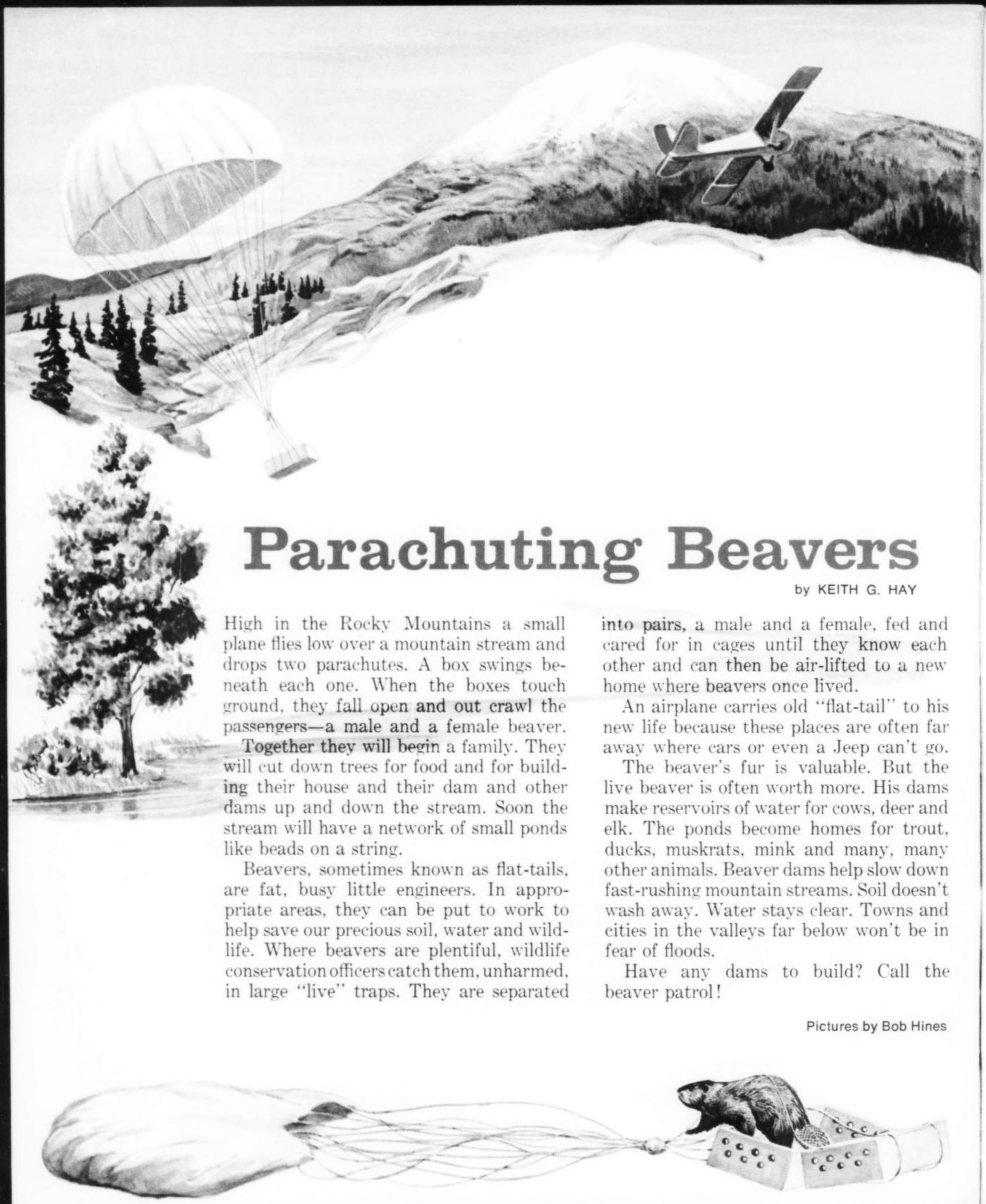
Stand close to a cold window so that the moisture of your breath clouds the glass. How many times a minute do you breathe? When a woodchuck hibernates, he breathes only once every six minutes. Don't you try doing that!

Do you know how to take a count of your heartbeat? You hold the fingers of one hand to the inside of your other wrist. This is the way you take your pulse. How many times does your heart beat in a minute? During hibernation a woodchuck's heart beats fewer than five times a minute.

Notice in the pictures that most hibernators curl up when they sleep. Can you figure out why?

Pictures painted by Bob Hines





# Parachuting Beavers

by KEITH G. HAY

High in the Rocky Mountains a small plane flies low over a mountain stream and drops two parachutes. A box swings beneath each one. When the boxes touch ground, they fall open and out crawl the passengers—a male and a female beaver.

Together they will begin a family. They will cut down trees for food and for building their house and their dam and other dams up and down the stream. Soon the stream will have a network of small ponds like beads on a string.

Beavers, sometimes known as flat-tails, are fat, busy little engineers. In appropriate areas, they can be put to work to help save our precious soil, water and wildlife. Where beavers are plentiful, wildlife conservation officers catch them, unharmed, in large "live" traps. They are separated into pairs, a male and a female, fed and cared for in cages until they know each other and can then be air-lifted to a new home where beavers once lived.

An airplane carries old "flat-tail" to his new life because these places are often far away where cars or even a Jeep can't go.

The beaver's fur is valuable. But the live beaver is often worth more. His dams make reservoirs of water for cows, deer and elk. The ponds become homes for trout, ducks, muskrats, mink and many, many other animals. Beaver dams help slow down fast-rushing mountain streams. Soil doesn't wash away. Water stays clear. Towns and cities in the valleys far below won't be in fear of floods.

Have any dams to build? Call the beaver patrol!

Pictures by Bob Hines

# Grow a Miniature Orchard

by Frances M. Miner Curator of Instruction, Brooklyn Botanic Garden

Have you ever grown a plant or a tree of your very own? It is fun and January is a good time to start. The next time you eat a grapefruit you can plant the seeds and start your own little trees growing in your room.

### THINGS YOU'LL NEED TO START

You'll need something to plant the seeds in: small flower-pots with drainage holes, or waxed paper cups, the bottom two inches of milk cartons, or plastic hot-drink cups. All of these need small holes punched in the bottom for drainage.

Use garden soil mixed with a little coarse sand and a bit of peat moss. If you live in the city, you can buy soil in small bags at the five-and-ten-cent store or a florist shop.

Cut the grapefruit in half. Some seeds will be large and plump, others may be quite flat. Fill two pots with soil almost to the top and press down gently. In one, place the plump seeds and label the pot with the number and type of seeds. Put several of the skinniest seeds you have on top of the soil in the other, label it and cover the seeds in both pots with a layer of soil about one-fourth to one-half inch deep. Press the soil down gently and water a little at a time until a few drops come out the holes in the bottom.

Keep your pots on a plate or tray in the window of a warm room. Mark the planting day on a calendar.

Each morning look to see what may be coming up. When the soil feels dry on top, water again—a little, and then a little more—until drops come out of the bottom. Never leave the pots standing in water all day. Mark the watering dates on your calendar too.

Will it be one week before a green sprout appears? Two weeks? Will all the plump seeds grow? Will any of the skinny seeds grow? Don't play favorites. Treat both pots alike—same light, same heat and water as they need it.

Watch carefully. Which plants grow the fastest? Measure each plant. Keep a complete record of your observations and measurements.

When the plants come up, they need plenty of light and enough, but not too much, water.

Grapefruit plants grow to be real trees 20–30 feet high in Florida, California, Arizona and Texas where they live outdoors the year round. In colder parts of the country they make pretty house plants. The seeds that you start will probably live in a small pot for six or eight months before they need to be moved to a larger one. In one of our future issues of Ranger Rick we will tell you how to move them.

Photo: Underwood & Underwood

# Let's Talk It Over

As you turned the pages of this first issue of your new magazine, you no doubt discovered that it is filled with many different kinds of information. And that it also contains interesting stories and a variety of fun things to make and do. Some of these you will enjoy doing by yourself. Others, you may want to share with your family at home, and also with your friends at school.

When you read Dirty Face, the story of the Alaska brown bear, were you surprised to learn how many pounds he weighed and how he got his food? Your teacher and the children in your class would enjoy hearing what you learned about Alaska brown bears. They may be quite surprised to know that Alaska brown bears must eat enough during the summer months to last them all through the winter.

If you were a bear cub, what would you enjoy most? Catching salmon, standing on your hind legs, being in the water, or sleeping all winter?

Perhaps you might like to write a story about a bear. That would be a very good idea. If you need more information about bears, where would you go to find it? The encyclopedia is one very good place. A trip to the zoo to watch what the bear does is another good plan. The library at your school has many books about bears. Some of these stories will be helpful because they tell about how bears live and what they do. Other stories may be fantasies about bears. Even if you want to write only a "make believe" story, it is still important to understand how bears behave.

Sometimes, "make believe" stories are called fairy tales. I hope you read Fairy Tale Gardens on page 16. It would be fun to make one of these gardens, wouldn't it? Why don't you ask your mother to help you find a book with one of these fairy tales in it? After you have read or listened to the story, the two of you may plan where to get the things you will need to make the garden. Working together will be fun, and watching the garden grow will be most exciting. The Fairy Tale Garden will be a nice surprise for Daddy to see when he comes home.

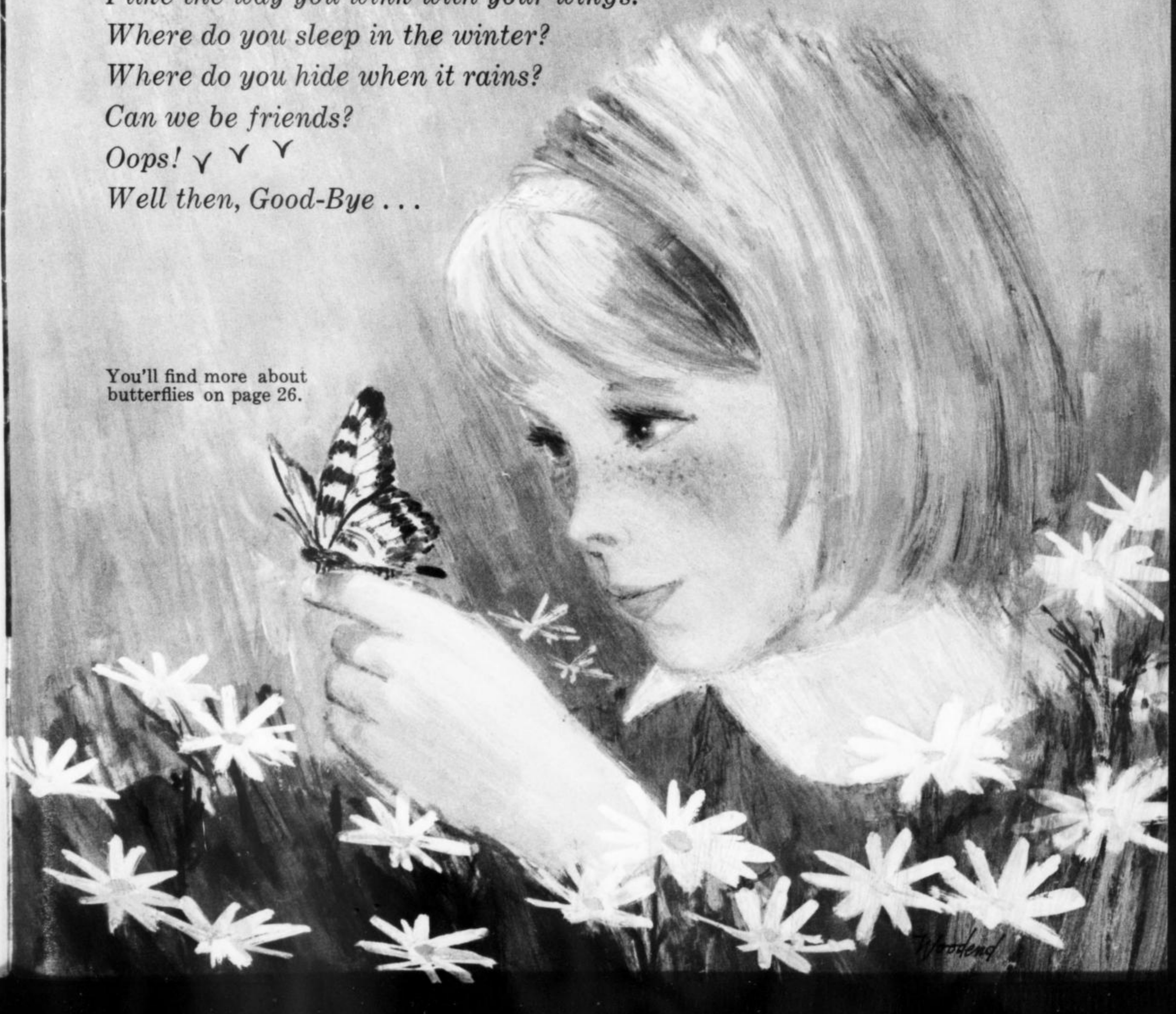
You will find many other things to enjoy again and again in this magazine, and additional happiness and fun will come from sharing these at home, in school and on the playground. When you are happy with new information, a different idea, or an unusual picture in the magazine, talk about it with someone. Both of you may then plan a project which you will enjoy together.

*Miss Frances*

*Hi, little butterfly!*
*Don't be afraid.*
*I don't want to hurt you.*
*I don't want to keep you.*
*I'll let you go.*
*I just want to know you.*
*May I touch you?*
*I like the feel of your feet on my finger.*
*I like the way you wink with your wings.*
*Where do you sleep in the winter?*
*Where do you hide when it rains?*
*Can we be friends?*
*Oops!* ⋎ ⋎ ⋎
*Well then, Good-Bye . . .*

You'll find more about butterflies on page 26.





You won't want to miss the exciting story
of this Alaska brown bear named Dirty Face
and her adventures while learning to fish.
You will find it on page 4.